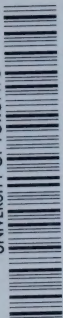


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The Journal of the
CANADIAN DENTAL ASSOCIATION

534M

Le Journal de
L'ASSOCIATION DENTAIRE CANADIENNE

v. 18



562124
244 S3

The official organ of the Canadian Dental Association.
Owned and published by the Association.

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Office of Publication
CONSOLIDATED PRESS, LIMITED, 73 RICHMOND STREET W., TORONTO

VOL. 18 - - - - - 1952

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The Journal of the Canadian Dental Association *Le Journal de L'Association Dentaire Canadienne*

Official Organ of the Canadian Dental Association

Owned and Published by the Association

Subscription Price Commencing January 1st, 1948 in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

Authorized as second class mail, Post Office Dept., Ottawa.

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Branch Offices

New York, 101 Park Ave. Montreal, 915 Birks Bldg. Winnipeg, 305 Birks Bldg

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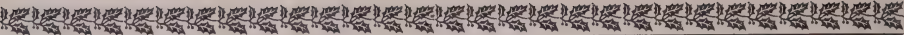
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*The Editors and members of the
Committee on Publications of
the Canadian Dental Association
take this opportunity of wishing
their many friends throughout
the profession and trade A
Happy and Prosperous New Year.*



New Year's Greeting from Our President

AS we enter the New Year of 1952 there opens up before us a new era in dentistry, for fifty years ago the Canadian Dental Association was founded. We pause at this time to recognize this event. Since its foundation in 1902 the Association has steadily grown to its present stature, one of which we all should be proud. Now we find new horizons and vistas unfolding before us, a challenge to our perspective, vision and abilities.

As this golden jubilee is being celebrated may I on behalf of the Executive and the Board of Governors wish you, one and all, a successful and happy year in the service of your chosen profession.

HAROLD M. CLINE

VANCOUVER, B. C.



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The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, JANUARY, 1952

No. 1

Dental Identification in the Noronic Disaster

by EDMUND A. GRANT, W. K. PRENDERGAST and E. A. WHITE, Toronto, Ontario

ON the evening of September 17, 1949, there occurred in Toronto harbour, one of the worst marine disasters in the history of the Great Lakes. The S.S. Noronic, flagship of the Canada Steamship Lines, had tied up over night at Queen's Quay while en route on a cruise from Detroit to the Thousand Islands. She had aboard some 700 passengers. About 1.30 a.m. the ship suddenly burst into flame and rapidly became a fiery furnace. The captain and most of the crew were ashore at the time, but the crew and those passengers who were still up managed to escape. The more elderly and quiet people who had retired early were trapped in their cabins and the narrow passageways between decks. The firemen fought the flames all through the night and it was not until they were able to board the ship about dawn that it was realized that there were large numbers of passengers aboard.

Among those who escaped, many were only in night attire; some had varying degrees of burns. The Canadian Red Cross were early on the scene and with the assistance of the police and the St. John Ambulance Brigade took measures for the care of these people. Ambulances and taxis were commandeered to take them to hospitals and hotels where the Red Cross had arranged for emergency accommodation. Tribute should be paid here to the taxi drivers who worked without

remuneration. The Red Cross saw to it that those rescued had their every need taken care of, even supplying them with new outfits of clothing, etc.

It was not, however, until the ship was boarded in the morning that the full extent of the stark tragedy was revealed. It was found that 118 passengers had not escaped, 41 men and 77 women.

The question might be raised perhaps, how did all the crew escape and what effort was made to rescue passengers. However, it must be remembered that most of the crew were off duty ashore and of the remainder their quarters were at the stern, a part untouched by the fire. Then the fire spread so rapidly that it was impossible to reach the passengers in the lower decks, many of whom were asleep in their cabins. The captain was away but happened to return just after the fire started and tried valiantly to organize relief and check the fire. This has all been subjected to a searching inquiry and need not be further commented on here. (Fig. 1)

When the firemen began the work of removing the bodies and the extent of the disaster was realized, the Chief Coroner took charge. A Disaster Committee was quickly organized. The Attorney General on behalf of the Provincial Department, and the Mayor on the part of the city, agreed to look after any necessary expense. Mr. W. J. Stewart was appointed Chairman of



FIG. 1. *The Noronic. Destruction of the Upper Deck.*

the Committee and quickly enlisted the aid of the Red Cross, The St. John Ambulance Brigade, The Salvation Army, The Morticians and Funeral Directors. The Horticultural Building at the Exhibition was engaged as a temporary morgue, and using all available ambulances and service cars of funeral directors, the bodies were rapidly transported there. Each body had been tagged with a number, and if possible, the number of the cabin it was in. The Chief Coroner set up an office there to direct proceedings. The Police Department assisted by photographing all the bodies, and collecting all valuables, jewellery and clothing on the bodies which was then listed and put in safe keeping. Mr. Paul Keenan, Secretary of the Morticians' Association organized a staff to look after the bodies. In another wing of the building, the Salvation Army and the St. John Ambulance Brigade set up a temporary hospital and reception parlour for enquiring relatives. Several telephones were installed, a taxi service arranged to bring relatives out and a panel of workers to interview the

visitors. The St. John Ambulance Brigade also set up a canteen service to feed visitors and workers which was maintained until the end of the enquiry months later. A lot of sandwiches and coffee were donated by a caterer. In fact, it was amazing the immense amount of voluntary help that came forward. Many citizens not connected with organizations came down and volunteered their services. Ministers of the various denominations were constantly in attendance. (Fig. 2)

The Chief Coroner then called on Dr. W. L. Robinson, Professor of Pathology, University of Toronto, and Consultant Pathologist to the Attorney General's Department, to conduct a detailed examination of the bodies with a view to their identification. Dr. Robinson decided that this should include an autopsy, dental examination, and x-rays. Professor Robinson summed up the reasons for the identification under the following headings:

- A. Family and personal reasons come first as an incentive.
- B. Legal:

FIG. 2. *The Mortuary.*

1. Insurance policies to be validated.
 2. Business reasons. There were cases where large business corporations had their work held up because deceased were partners or executives.
 3. Question of remarriage.
 4. Wills, estates, to be settled.
 5. Law suits against Company.
- C. To Guard Against
1. Fraudulent attempts to collect insurance—25c day policy.
 2. False claims of death of other persons.
 3. Desire of some people to disappear—unhappy marriage, etc.

It was at first thought that there might be many strange tales arising out of the passing of such a large number of people on a special pleasure cruise as this was. That there might be people travelling under assumed names or in circumstances which they might not want known, but as the investigation continued there was very little evidence of this. For the most part, the victims were elderly, quiet, married couples. Nevertheless there

were many tragic stories. There was one bizarre incident, the motive for which has never been explained. A man appeared at the Morgue who said he was from New York, and described himself as an actor and that he was looking for his dancing partner whom he believed was on the boat. He identified one of the bodies by superficial body markings and was so positive about it that the body was released. He then arranged for an elaborate burial in a Toronto cemetery. Flowers arrived supposedly from well-known theatrical people in the United States. Then the man disappeared leaving all the burial expenses unpaid and other extensive bills. Thorough investigation in theatrical circles and elsewhere in the United States failed to uncover any evidence that anyone of the name he gave or his partner ever existed. Later on the body was exhumed and subsequently identified as another person—a person, by the way, that the doctors had been searching for, for a long time and their search had been needlessly delayed by this extraordinary action.

Business reasons of course played a

large part. One man arrived who said he was looking for a lady who was his business partner. The financial end of his business was completely tied up until her identity was established. He had a payroll to meet to his employees of several thousand dollars weekly and all this was held up.

There were many tragic stories of human interest arising out of the disaster. In fact each case was a pathetic story in itself and these were handled by all the workers with sympathetic understanding.

MEDICAL IDENTIFICATION

Professor Robinson placed his chief assistant, Dr. T. C. Brown, in charge of the medical examination of the bodies. Twelve doctors from the Department of Pathology of the Toronto General Hospital at the Banting Institute, working in pairs, commenced the task of examining the bodies and recording in minute detail on the regular coroner's autopsy form every feature of the body, sex and stature, age and development, scars and infirmities, signs of old or recent disease, extent of the burns and injuries. This first examination of 108 bodies took about seven hours.

Dr. A. C. Singleton, Radiologist of the Toronto General Hospital, headed the x-ray investigation. Three new x-ray machines which had been ordered for one of the hospitals had just arrived and were still in bond in Customs. They were quickly released and sent out to the Horticultural Building where a corps of technicians from city hospitals and maintenance men from the manufacturing companies worked in shifts by day and night under the general supervision of Mr. Tom Hurst of the X-Ray Department of the Toronto General Hospital. They made x-ray records of every bone in each body and these records subsequently proved invaluable in identifying many cases.

From the very first morning, hordes of relatives and friends descended on the scene anxiously looking for their loved ones and it was exceedingly diffi-

cult to try to attend to their enquiries and at the same time arrange and classify all the information and records that had been obtained from the examination.

The following extracts from a report by Dr. T. C. Brown give some idea of the complexity of their work.

"When the autopsies were finished a small group of us stayed on at the morgue to keep an eye on the bodies, and to be available should an identification be undertaken. As we sat there, it was at once obvious that the autopsy reports would have to be analyzed and the facts catalogued if they were to be of value in this job. All the reports were gone over and lists made of the bodies having certain features, *e.g.* scars, deformities, and previous operations. As our lists were skimpy because of the limited autopsies done, three of us returned to the Exhibition grounds the next morning to do more detailed examinations of these bodies, which had been x-rayed. Hardly had we started when the relatives and friends of the missing arrived in force, and auxiliary service workers were bringing little groups of people to us to be taken into the morgue. An urgent call for reinforcements brought back some more of the men who had done the autopsies. Before long, other doctors had begun to interrogate the relatives about the person they sought, to see if any of his features could be matched with those of any of the bodies we had autopsied. The general characteristics of these bodies had already been listed, and, in a few cases, these were sufficient to make the identification. Usually, however, it was found necessary to enquire deeply into the full medical history and, as this was often not really known by the people being interviewed, we either had to go after it ourselves, when the likely source was known, or had to ask them to obtain the information for us. This meant sending phone calls and telegrams to doctors in hospitals in the United States and asking them for histories, operative notes and x-rays. Sometimes

a word or two read from a history in a distant hospital would clinch the identification. More often the information would be insufficient and the process would be held up until new facts were brought forth. The outcome of this was a separate file containing what was known about each missing person. When the new data arrived on a particular case, the investigation was pursued to its end, or until the next impasse, when the process of message sending and refiling was repeated.

In our spare time we continued gathering and listing more facts about the bodies and classifying them. Bodies were re-examined more thoroughly as the x-rays were finished. All the bodies with operative scars were grouped in accordance with the sites of the scars, and also against the organ removed; for instance, the appendix, the womb or the gall bladder; those organs with signs of old disease of the lungs, the kidneys and the liver — all were listed separately. Ultimately every feature of every body was fitted into one of these lists.

While our own desk was busy, Dr. Grant was carrying on in much the same manner. Descriptions of dentures, dental charts and x-rays were asked for and obtained by telephone or telegraph, and by relatives going home and bringing them back. In some cases casts and moulds of jaws and alternative dentures were submitted and one or two dentists, who had attended deceased persons, actually came up themselves to help us out. While Dr. Grant was able to positively identify several people by their teeth and dentures, his major contribution to the scheme, as a whole, was the list drawn up on each case to tell which bodies were excluded from identification on dental grounds, and an accompanying list of those bodies which were, from their dental features, possibly the persons sought. In this way he was able to screen the cases so that we evolved a system of having the relatives see Dr. Grant before coming to the medical desk. The police, dealing with per-

sonal property, were proceeding in much the same fashion and, where applicable, adopted this system as well. During that hectic first week a lot of information about the bodies was gathered by other types of investigation. Professor Cates, of the Department of Anatomy of the University of Toronto, spent an evening doing a special examination of the bodies for anatomical and developmental features upon which the height and age estimates were made. An addition to the police files was made by a Special Agent of the F.B.I., who came up from Washington to take fingerprints of bodies in which the fingers were not so severely damaged.

Many important facts were gathered in the search of the ship itself. This was undertaken on the Monday following the fire and continued for a week. The initial boarding party of some 30 men was under the supervision of one of our group, and consisted of the police, doctors of the Banting Institute, and the morticians. Their force was subsequently enlarged to 60 or 70 by the addition of more police and men from the City Department of Street Cleaning. Their procedure was to rake, shovel and sift through the ashes and debris, deck by deck, following the cabin plan which had been chalked on the steel girders by the purser of the ship. Human remains, jewellery, watches, and every sort of personal property from the site of each cabin was put in a separate basket and tagged by the police. These baskets were taken to the Exhibition where the contents were catalogued by the police and identified from the passenger and cabin lists, or from the examination by the survivors and relatives. The human remains were described and recorded by the pathologist.

While all the excitement was going on, the radiologists were working steadily and, when the first set of films was completed on Tuesday night after the fire, *i.e.* 48 hours from the time the first film was exposed, the task of examining and reporting them was be-

gun by a board of radiologists. By the same day pre-mortem films from the victims were arriving and the long arduous task of comparing x-ray films was underway. Again, some cases were easy to identify and this was often accomplished with absolute accuracy before any other progress in the medical investigation had been made. In other cases, x-ray comparison gave major confirmatory evidence to the identification. When good pre- and post-mortem films were available for comparison, this method of investigation was more accurate than fingerprints.

By the end of the first week we had identified 56 bodies but it was already becoming more apparent that from here on the identification was going to be more difficult and require every scrap of available evidence. It was only at this time that the x-ray reports were beginning to come through, that messages on fingerprints were first arriving from Washington, and that all the particulars derived from the investigation of the boat were available to our use. At the morgue, itself, our group had been so busy interviewing relatives, working on identifications, and completing the autopsies, that we had had really little time to make a comprehensive classification of the information we had gathered. Much of it was on scraps of paper, recognizable and meaningful only to the person who had written them, and still more of it was in our memories. Our group which had been carrying on this work, had had to work in shifts because some of us were engaged in going over the debris on the boat and, at the same time, we were responsible for maintaining two busy services at the Banting Institute. To rectify the situation it was decided to start an all-out organization of the lists and classifications which had already been started. The first step in this was a round-table meeting which we held during the Memorial Service for the Noronic disaster victims, when we were assured of no interruptions. All the information on each body and every missing

person was pooled and turned into a full file on each. It was also agreed that, when the identification was completed, a full final note on the case would be made. As the Canadian Red Cross had offered to aid us in drawing up our records, we asked that a typist be assigned to one member of our group who would do nothing else but set up the proper filing system. Dr. Delaney was allotted to this job and he spent the next week or so dictating summaries of autopsy reports, using the files which were not required by the men who were continuing with the investigation. By the end of the second week we had a docket on every body and on each missing person.

During the second, third and fourth weeks, the investigation was a much more orderly proposition. Working in pairs at the Exhibition, our men utilized the new enlarged files in the interrogation of relatives. These enquiries would narrow the possibilities for a certain missing person down to a small number of bodies. Again, messages would be sent to the doctors, hospitals, employers, druggists, dressmakers, banks, and any person who could possibly have any information on the deceased. This was a long, tedious process and the investigation of an individual case became a matter of days and weeks. When one case came to a halt, the files on other cases would be perused in the hopes of finding some lead which would direct our further efforts. We had to stay at the Exhibition because frequently we would have to re-examine the bodies and the property with them. By the end of the month the study on the individual cases had become very intense but very slow. At about this time, Dr. Delaney had completed his filing system and had accumulated a knowledge of the remaining cases far wider than that possessed by any of the rest of us. It was decided that it would be his lot to carry on with this work. When he took over, 72 bodies had been identified. His has been a slow, steady, uphill fight and he has succeeded in identify-

ing practically all the bodies. Besides the methods already established, he skilfully evolved a system of special charts which were based on elimination lists. The value of these charts was to select the bodies upon which his efforts were focused. While the systems were good ones, they would have been no use had it not been for the methodical approach and the intensity with which he attacked the problem.

THE RED CROSS

Now comes a word about the Red Cross. They were in the thick of the fray from the beginning. I understand that in the first twenty-four hours after the fire the telephone operators at their headquarters handled 48,000 enquiries. It would be the survivors who could best tell of the shelter and comfort which the Red Cross provided. We, who have worked on the medical identification of the victims, are fully aware of the significance of their endeavours. Information on the missing people has been collected and filed since the first calls for help came into this office. Direct teletype communication with Cleveland and Detroit was opened up promptly and messages began to flow between the Chapters in the cities of Ohio and Michigan, and this headquarters. On our own files there are yards of these messages and over one thousand have been sent and an equal number received during the investigation. All the queries of our investigators were answered with astonishing speed and the replies were often more useful to us than a personal interview. They contained every conceivable kind of information about the dead. Hospital histories, operative notes, x-rays, samples of clothing, dentures, and countless other items were procured at our request and, in actual fact, there was also included anything else that the trained workers of the American Chapters thought had any bearing on the matter. Indeed, the awareness of the Red Cross to the problems of both survivors and the relatives, and their insight into the project at hand, and the tenacity and fairness with which

their facts were ferreted out, is a feat which, to my knowledge, has gone unrecognized so far. The first and only passenger list from the Noronic was furnished by the Red Cross and it was their speedy investigation which established the names of those who were missing, and the actual number of fatalities in the Noronic disaster.

DENTISTRY'S PART IN THE IDENTIFICATION OF VICTIMS OF THE NORONIC DISASTER

This terrible tragedy imposed a very difficult problem on the medical authorities in their task of identifying the victims. The fierce fire which raged for hours, completely gutting the interior of the ship, developed such terrific heat that it was not surprising that after death, the bodies were so badly burnt that recognition was almost impossible. With the exception of those drowned, we only saw one body with recognizable facial features. (Fig. 3.)

Under these circumstances, the dental examination and records assumed a greater importance than is usually the case and were of considerable assistance in identification and in cutting down the extent of the arduous work of a complete medical check-up.

On Sunday morning September 18, Dr. Grant received a telephone message from Mr. W. J. Stewart who had been appointed Chairman of the Emergency Committee, that he wanted a dental examination of all the victims and asked him in his capacity as Director of Dental Services, Toronto Department of Public Health, to take charge of it.

Hurried calls were then made to Toronto dentists for assistance but considerable difficulty was experienced as many were out of town for the weekend, others had already left for church. However, a few were contacted, who were asked to enlist others, and within an hour the examination had started and before it was over forty dentists arrived and took part. It was realized at once that a uniform chart and certain supplies would be needed and fortunately, Mr. M. E. Bower, Manager



FIG. 3. This photograph of one of the bodies illustrates the difficulty of identification. Ordinarily bodies can be identified by facial appearance and body markings, but in this investigation there was only internal evidence to go on. The dental investigation thus assumed a greater importance than is usually the case.

of the Denco—Ontario Dental Supply Company, was contacted early and rushed these necessary supplies to the Exhibition. The next point was that a uniform procedure must be followed. A hurried conference was held with the first arrivals and a plan decided on. The examination then commenced. The dentists worked in pairs. A chart recording all the dental conditions that could be noted was made out for each body and any dentures or displaced teeth placed in an envelope with the chart. After this examination was completed, the charts were all checked over by a group from the College, composed of Dr. R. J. Godfrey, Dr. R. E. Myers, Dr. Irvin Ante, Dr. Vernon Fisk, Dr. Harvey Reid and Dr. Don Gullett. The following dentists took part in the examination:—Dr. W. K. Prendergast, Dr. R. L. Twible, Dr. Gordon Paul, Dr.

E. H. Carson, Dr. F. C. Lackie, Dr. Gordon Booth, Dr. D. C. Fraser, Dr. R. W. Marshall, Dr. R. S. Woollatt, Dr. I. H. Ante, Dr. Ervin H. Ante, Dr. E. B. Hooks, Dr. P. W. Arkle, Dr. A. C. Robinson, Dr. P. O. Hutz, Dr. W. R. Jackson, Dr. J. A. Butler, Dr. Tom Scott, Dr. G. Chalmers, Dr. W. B. T. Amy, Dr. W. D. Cavanagh, Dr. R. E. Moyers, Dr. J. Johnston, Dr. R. J. Godfrey, Dr. J. L. Chalmers, Dr. C. Moses, Dr. F. H. Shepherd, Dr. W. Dunn, Dr. R. Bennett, Dr. V. Fisk, Dr. H. Reid, Dr. D. Gullett, Dr. G. A. Lee, Dr. J. A. Hillier, Dr. Wm. C. Leggett, Dr. J. D. Purvis, Dr. F. S. Loucks, Dr. W. T. McIntosh, Dr. E. A. White, Dr. H. Mercer, Dr. J. G. Perkin.

The following gave special assistance in the tedious work of identification throughout the week:—Dr. E. J. Lehman, Dr. R. W. Freestone, Dr. R. E.

Brayley, Dr. L. Grose, President, Ontario Dental Association, Dr. E. A. White, President of The Academy of Dentistry, Toronto.

The Dental Supply Companies have been of material assistance in furnishing supplies and technical help as follows.

Dental Company of Canada (Denco-Ontario Branch), furnished all the record charts used in the examination together with necessary instruments and supplies. Their Manager, Mr. M. E. Bower, left his home on the Kingsway immediately he received the call on Sunday morning and had them out to the Horticultural Building within an hour.

National Refining Company Limited, loaned the services of their artificial tooth expert, Mr. Wilfrid Greenwood, who worked all one day and in the evening until 10.00 P.M. examining all the artificial dentures found, classifying them as to make of tooth, shade and mould number, type of base, material used, etc. All of which was of great help in identifying these cases. The National Refining Company also sent instruments and supplies.

In this way one hundred and two bodies were examined out of the total of one hundred and eighteen victims. A few had been quickly identified and claimed by relatives before the dental examination took place and later the bodies of three drowned victims were recovered.

Of the one hundred and two bodies examined, nineteen had no dental structures remaining and consequently no dental examination could be made. For this and other reasons the identification of these particular bodies by the medical staff was exceedingly difficult.

A tabulation of the dental examination findings of 102 bodies revealed that 30 had their own natural teeth, 29 were completely edentulous, and of these in 6 cases no dentures were found, 17 had dentures with plastic base, and 6 had dentures with vulcanite base. 24 had either upper or lower partial dentures

or a combination of both. 19 had no facial structures remaining. In 7 of the edentulous cases no lower denture was found and in another seven the mandible also was missing. In fact one of the features noted was the extensive burning in the facial area. A possible explanation of this might be that a plastic denture once ignited, might burn fiercely.

The problem of dental identification divided itself roughly into two phases. First, of those with natural teeth, and second, those with artificial teeth. With the first group it became a matter of comparing the mouth conditions found with charts and x-rays furnished by their dentists, and noting particularly any unusual features. For instance, one case had abnormally large centrals, the crowns being 12 mm. long and 9 mm. wide. A drawing was made on the chart of these teeth and this became a significant piece of evidence. With the second group, identification rested largely on an accurate description of the dentures, and this in the case where dentists had kept accurate records became of invaluable assistance. One instance might be cited. The only evidence we had was a full upper denture, since the lower jaw was completely destroyed by the fire. On removing some of the front teeth to ascertain the mould number, they were found to be of a diatonic type, and the tooth expert was puzzled to give a name to them. In talking with relatives, this case was suspected to be a Mrs. "K," they asked that a call be made to their dentist in Detroit. The dentist accurately described the denture and the special type of teeth used, and said they were called Austin teeth. On hearing this, Mr. Greenwood said that was the name he had been trying to recall. From this information the body was identified.

On completion of the examination, the charts and envelopes were collected and placed in a file on a desk set up in the main hall of the Horticultur-

al Building. Then began a task running into several weeks and for long hours each day of interviewing relatives, going over records or whatever information they could supply, in an endeavour to match this with the charts of the bodies. The Canadian and American Red Cross played a most useful part in contacting relatives and bringing them and their information to Toronto. The Salvation Army took them in charge on arrival at the temporary morgue and were helpful in many ways, particularly in providing long distance telephone service to dentists in the United States who could give information or corroborate our findings. The St. John's Ambulance Association, Boy Scouts, the Clergy and many others all gave wonderful voluntary assistance.

The procedure followed was that on arrival at the Horticultural Building, the Salvation Army received them, recorded their names and other particulars, and they were then brought to the Dental Desk, where their dental history was studied and compared with the charts. In only a few cases was it possible to complete the identification by this means, but it was possible to eliminate many and make out a list of probable ones and always one had to include in this list those with unrecognizable dental structures. This list was then turned over to the medical staff so that instead of having to check over the medical history of the whole group they had a much smaller list to work on.

From time to time, as more information arrived, it often became necessary to re-examine certain bodies, and Dr. Ed White, Dr. R. W. Freestone, Dr. E. J. Lehman and Dr. R. E. Brayley were of invaluable assistance in this work.

In the first few hectic weeks about 70 bodies had been identified but the slow work of identifying some 45 difficult cases continued for several months and was not completed until January 17, 1950, when, with 3 bodies

remaining unidentified, the investigation was discontinued.

In November, 1949, Dr. R. J. Delaney of the Banting Institute carried on the work, calling in specialists in the various fields as needed. He devised an elimination chart which had listed across the top the numbers of the remaining bodies, and down the side the names of still missing persons, with corresponding vertical and horizontal squares. As soon as any information was received, either medical, dental or x-ray, that would positively show that a certain body could not possibly be a certain person, the square opposite the name and number would be blocked out. The first of these graphs prepared by Dr. Delaney, October 14, 1949, showed only the cases excluded by dental findings. Then, as further information was received, other squares would be marked out. A comparison of this first chart with one as it stood on November 24, indicates the progress made. (Figs. 4, 5, 6, 7) It is almost entirely due to Dr. Delaney's tireless energy and enthusiasm that all but three of these difficult cases were identified. Dr. Grant was in almost daily communication right up to the end, with Dr. Delaney, as he would telephone with some further information he had gained, or a question about the dental report on a certain body, or a request to accompany him to the morgue to check the bodies again. In November, at Dr. Delaney's suggestion, the teeth of all remaining bodies were removed and through the kindness of Dr. Diprose, these were x-rayed and compared with x-rays of missing persons which had been forwarded by their dentists. These x-rays gave a positive lead in several cases and at least one case was identified solely by this means.

A summing up of the Dental Examination shows the following results:

1. Solely identified by dental records	20
2. Cases where dental investigation was first lead	20
3. Cases where dental investigation assisted	19

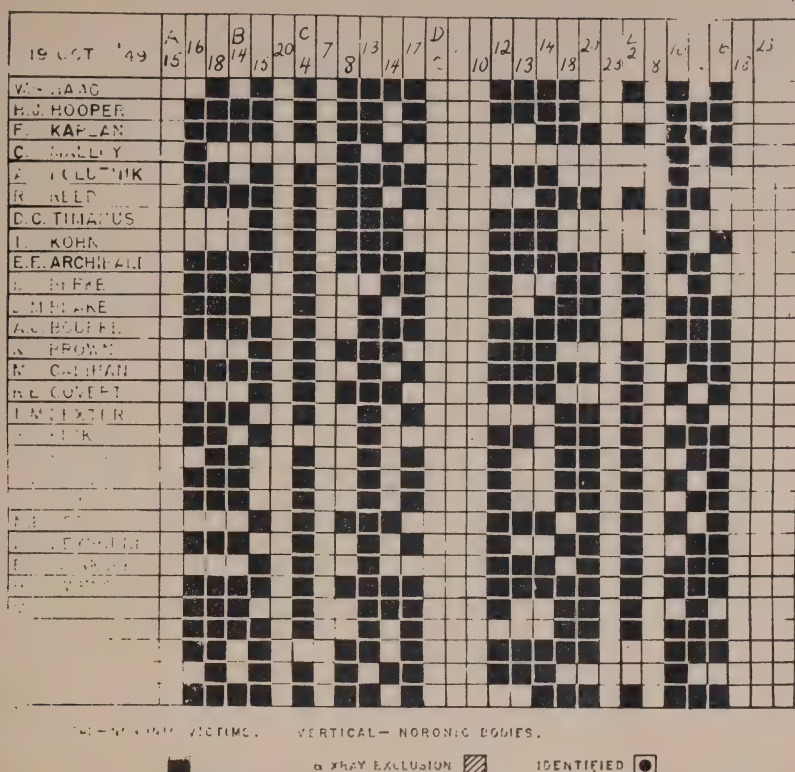


FIG. 4. Elimination Chart No. 1. This is the first of four charts showing elimination method used in identification. Across the top are listed numbers of female bodies: in left column, the names of missing females. The elimination process was begun by first blocking out all cases excluded on dental grounds.

4. Cases identified before dental examination began	12
5. Cases which were examined but dental records were of no help because insufficient or no dental history of missing person was received	28
6. Cases where no dental examination could be made because there were no remaining facial structures	19
TOTAL	118

In a disaster of this magnitude there were naturally many stories of intense human interest, in fact each one was a tragic drama in itself. Each case also had some unusual or outstanding mouth condition which would be of interest from a dental standpoint, but space would not permit a description of these many variations. However, mention should be made of a few cases where the dental investigation played a principal part.

The case of Mr. H. E. — Dr. Grant

remembers this case with considerable chagrin because in the first few days of the investigation, when not too much experience had been gained, he too readily accepted the opinion of relatives. This man had been a prominent executive in Detroit and his whole family were early on the scene, hunting for his body. They claimed to recognize a denture because one of the lower anterior teeth was broken. They were so positive about it that this was accepted as positive identification, and the body was released by the Coroner. The next thing Dr. Grant heard about it, was two nights later, when he overheard the Chief Coroner, Dr. Smirle Lawson, calling the Chief of Police, Detroit, and emphatically requesting that he stop the funeral

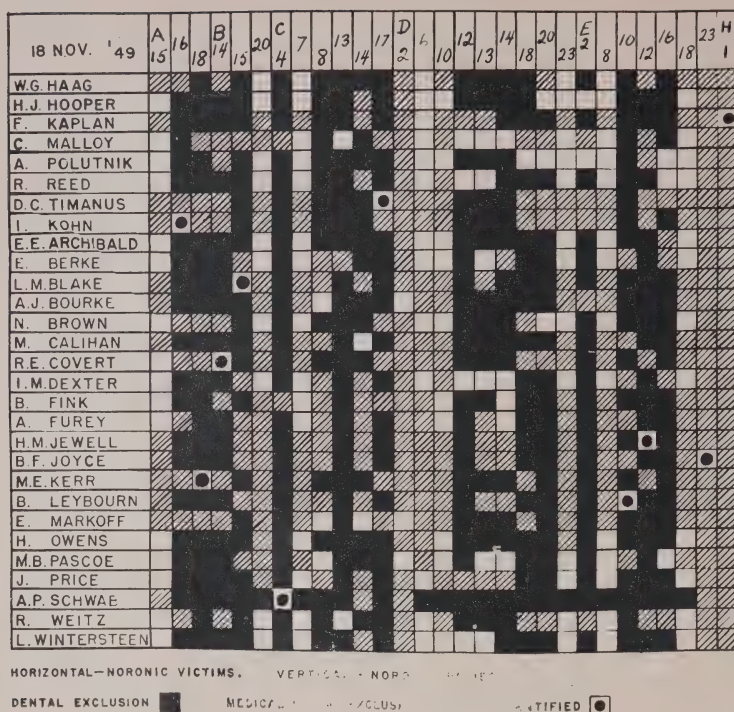


FIG. 5. The situation one month later. Additional female bodies have been excluded either by dental, medical or x-ray findings and some have been identified.

and return the body. It transpired that finger prints of this body had been sent to Washington for identification and a wire had just been received from the F.B.I. — that they were not identical with those of Mr. H. E. on file. It seems that the F.B.I. have the finger prints of a great many Americans on file, and Mr. H.E. having handled extensive war contracts was registered. The dental laboratory in Detroit also told the police that they did not think the dentures were made by them. Consequently, the body and dentures were returned and later identified as someone else, and another body was identified about a week later as Mr. H.E.

The case of Mr. John N.—This was a young and healthy man, so there was not much medical history to go on. His young and attractive wife had haunted the morgue for a whole

week. She came daily to our desks but we were unable to help her. She knew her husband had dentures but could not recognize them. She was asked to get more information from their dentist and a week later, she returned with two stone models of her husband's mouth. How the dentist had kept these models is hard to understand. On going over the dentures on file, we found that the full upper and partial lower dentures of body E.16 fitted the models exactly. She insisted then on viewing the body and was able to point out to the medical authorities certain body markings so the case was then quickly completed.

The case of two sisters—Ruth and Genevieve A. — Genevieve had been quickly identified, but Ruth could not be found. Having been a fairly healthy person, there was no medical history to go on. Her dentist, Dr. G. H. Rose

19 OCT. '49.	B-12	-19	C-1	2	-11	-19	D-4	-5	-11	-15	-19	-21	22	E-19	-20
J. DOERING															
J.M. THOMAS															
R. ZIMMERMAN															
H.H. KOHN															
T.J. MALLOY															
D. KEDDIE															
C.BELTZER															
M. BERKE															
L.H. BLAKE															
M. GARDIN															
R. FINEY															
F.S. NEWELL															
A. NEWELL															
W.C. FASOLE															
A. PRICE															

HORIZONTAL—NORONIC VICTIMS. VERTICAL—NORONIC BODIES.

DENTAL EXCLUSION  MEDICAL & XRAY EXCLUSION  IDENTIFIED 

FIG. 6. Lists of male bodies and male missing persons. The black squares show dental eliminations.

of Cleveland had sent a very complete chart of her dental operations which checked closely with body E.6. He further stated that he thought positive identification could be made through the fact that the lower anterior teeth still retained their development lobes and their incisal edges still retained that characteristic irregular outline. It was decided to re-examine this body and this was done by Drs. E. A. White, R. E. Brayley, and E. A. Grant. They found the condition clearly marked and this served to clinch the identification.

The case of Mrs. J. S.—This person had a partial upper acrylic denture which had several distinguishing features. Evidently there was a very close bite as some teeth were of porcelain and some of plastic. There was a hole in the right heel of the denture

and a definite nick in the left heel. The relatives furnished the name of their dentist. A long distance call was put through to him and he described all these markings so accurately that there was no doubt as to the identification.

The case of Mr. R. K. — We had a very complete chart and x-rays of his mouth showing type and location of fillings which checked very closely with body C.5. On looking over the chart again, it was noticed that one tooth had a root filling. To check this, the tooth was removed from the body C.5 and an x-ray made of it which clearly showed the root filling and checked exactly with the x-ray furnished by Dr. J. K. Lyons of Jackson, Michigan. This all helped to make identification positive.

The case of Miss Ruth C.—This was

18 NOV. '49	B-12	-19	C-1	-2	-11	-19	D-4	-5	-11	-15	-19	-21	-22	E-19	-20
J. DOERING	●														
J.M. THOMAS							●								
R. ZIMMERMAN														●	
H.H. KOHN				●											
T.J. MALLOY					●										
D. KEDDIE															●
C.BELTZHOVER															
M. BERKE															
L.H. BLAKE								●							
J.L. CALIHAN															
B. FUREY														●	
F.S. JEWELL	●														
A. LEYBOURN							●								
W.J. FASCOE										●					
A. PRICE			●												

HORIZONTAL—NORONIC VICTIMS.

VERTICAL—NORONIC BODIES.

DENTAL EXCLUSION



MEDICAL & XRAY EXCLUSION



IDENTIFIED



FIG. 7. One month later shows all male cases identified but three. These were subsequently identified.

one of 40 or so cases in which identification had been delayed and we seemed to be at a standstill. On November 4 the remaining teeth were removed from all the bodies, and x-rays were made of them by Dr. R. E. Diprose. An appeal was then made to relatives and dentists for any x-rays they might have. On November 9 some x-rays of Miss C. were received and on checking these with Dr. Diprose they were found to correspond with those removed from body B.14, and this made identification positive. This same method led to several other identifications and we were greatly indebted to Dr. Diprose, a specialist in Dental Radiography, for his assistance.

The case of Mrs. R.S.—Mr. S. who was searching for the body of his wife without much success, claimed to rec-

ognize a certain partial upper denture as belonging to her. This denture had been to us somewhat of a mystery, as it was found on a mortuary table beside a body to which it certainly did not belong. The denture was of a special type with many distinguishable features. It had a cast vitallium framework with an acrylic saddle on the right side carrying four teeth, while on the left side only one tooth was replaced, namely, L.6, by a porcelain tube tooth with cast base. What made the denture unique was that it had been reinforced in the anterior region to open the bite, and there were occlusal overlays on L.5 and 7. This denture was accurately described over the telephone by Dr. Jackson of Findlay, Ohio, who made a definite conclusion that it belonged to Mrs. S. However, this did not help us to lo-

cate Mrs. S. as the denture had been found apart from any body. Later on in the investigation Dr. Grant was struck by the marked similarity between this denture and a partial lower denture belonging to body C.4. They were of similar material and design and occluded together very well. Our hopes were stalled by the husband's emphatic statement that his wife did not have a lower denture. In spite of this, it was difficult to get this similarity out of one's mind, so some time later Dr. Grant wrote to Dr. Jackson, describing the lower denture in detail. Dr. Jackson replied on October 30: "Your description of the lower appliance of Mrs. S. is perfect. Your description tallies exactly with my records." The upper denture was then inserted in the mouth of C.4 and found to fit perfectly. It was then ascertained that the couple had only recently been married and Mr. S. did not know his wife had a lower denture. Identification was therefore completed, based on accurate dental description.

It was noted that in the full denture cases only six had vulcanite bases. Two of these were made of dark elastic rubber and two of a light orange colour. In each case they resembled each other in type of teeth used, etc. and this led to matching four of these cases as husband and wife, and assisted in the identification.

RECOMMENDATIONS

This is perhaps the largest case on record where dental examination had to be heavily relied on and did play an important part in the identification. We feel that the experience should be reviewed to see what lessons can be drawn from it. Looking back, one can see how things might have been done differently, but it must be realized that the work was started under conditions of extreme pressure and confusion. There was practically no experience to guide us and certainly no time to sit down to

study methods of examination and plan a course of procedure.

Our recommendations would therefore be, 1. In cases of disaster where a large number of bodies are involved, that a definite and systematic examination be made of each victim and that every minute particular of conditions in the mouth be recorded on a special chart. It was noted that the medical group were greatly aided in their examination because they had a standard autopsy form to use which had various and complete questions which had to be answered.

2. When the examination has been completed, all the records, and any dentures or loose fragments should be gathered together, a separate container for each case. Then before the work of meeting relatives in an attempt to match their information with what has been gathered about the bodies, it would be well to take sufficient time to type a complete list of the cases and then classify them into groups. This would greatly simplify the work to follow.

3. It soon became apparent that there is an appalling failure on the part of dentists to keep any accurate record of the mouth conditions and history of their patients. In most cases their charts only recorded operations they had themselves performed without any notation of mouth conditions or previous dental operations. Then too, they were often in a code that only the dentist himself could understand. Some charts were marked left-right, and others right-left, and some had no indication which was right and which was left. It is time that the dental profession got back to the practice they were taught in college, that is to keep a complete dental history file on each patient just as a physician keeps a medical history. Such a record should enumerate all conditions, normal or abnormal, in the mouth; present and missing teeth; mal-formed, mutilated, under-developed teeth; all dental operations and restorations.

4. In order to make the last recom-

mendation effective, our National Dental body or Association of Dental Schools should prepare a uniform dental history chart and teach a uniform method of recording findings.

5. Dental radiograms should be retained on file, to be available if needed at any time for identification.

6. Artificial dentures should bear some identification mark. In Great War II, the Dental Corps incorporated into acrylic dentures a small piece of nylon on which had been typed the wearer's name. It should be a simple matter to place some such identifying mark on a denture and certainly if this had been done in the case of the Noronic victims, it would have greatly simplified and hastened the work.

The fact that Dentistry was able to

play an active part in this grim experience extending over 4 months in which all but 3 of the 118 victims were identified, is due to the spirit of team work which activated the various groups which took part.

Grateful acknowledgment for their guidance and help is made to Mr. W. J. Stewart, Chairman of the Disaster Committee; the Chief Coroner, Dr. Smirle Lawson; Prof. W. L. Robinson, Chief Pathologist, University of Toronto; and to his Assistants, Dr. Tom Brown and Dr. R. J. Delaney; and to all those members of the Dental Profession, who when called upon, gave freely of their time. Great assistance was also rendered by the Red Cross, the Salvation Army, the St. John Ambulance Brigade, the Police and a large number of volunteer workers.

National Research Council Dental Research Committee Holds Mid-year Meeting

by S. J. COOK,* Ottawa, Ontario

THE National Research Council's Associate Committee on Dental Research, under the able Chairmanship of Dean R. G. Ellis of Toronto, continues to pursue a program of studies on topics of prime interest to the profession. At the mid-year meeting held September 27, 1951, there were fourteen (14) members present from dental research centres across Canada.

They gave careful consideration to interim reports of fourteen (14) investigations being carried out in Canadian university centres under financial assistance in the form of grants from the Committee. The two fellowships awarded this year were also brought under review although in both instances the Fellows had been delayed in undertaking their projects and as a consequence had not yet accom-

plished as much as they had intended to do.

The Committee exercises the greatest care in selecting research projects for support through grants-in-aid, and as a result, the reports of the studies on approved investigations contain most interesting and valuable information. These studies are reported in the technical journals and already the Committee has to its credit some 21 papers based on work done under grants-in-aid from this group. At each meeting it is the practice to receive written reports from all grantees and also to invite some of the grantees to report in person on their projects. This latter procedure adds greatly to the interest of the meeting since it tends to bring out detailed points about the researches that might be overlooked or not sufficiently empha-

*Secretary of the Associate Committee on Dental Research of the National Research Council of Canada.

sized in the printed reports. Dr. C. P. Leblond of Montreal and Dr. M. Doreen Smith of Toronto were present to report on their respective projects in September.

Dr. Leblond gave the members a clear and excellent presentation of his subject, "Entry of phosphate and carbonate salts into teeth, as shown with the help of radio-phosphorus and radio-carbon". In his earlier work Dr. Leblond had studied the entrance of radio-phosphorus into the teeth of hamsters and rats up to about the age of 14 days. It was found impossible to carry out studies beyond that age since the teeth became too hard to section by the celloidin method then being used. A new method is now being employed which uses a high-speed section-cutting machine derived from that of H. F. Atkinson (Brit. Dent. J.). The method was described.

Dr. Leblond further reported that, in work done with Mr. R. Greulich, radio-autographs of new-born rats treated with radio-carbon were obtained at 4, 24, and 72 hours following injection. The teeth were then decalcified, sectioned and radio-autographs were made. This material was exposed for eight months and then developed and fixed. The results showed that if the phenomena observed after administration of radio-carbon are taken as indicating the fate of the ground substance and those observed after administration of radio-phosphorus as indicating the formation of the calcified material of enamel and dentine, it may be seen that these two processes are quite distinct in timing and location. It has often been thought that odontoblasts secreted both the ground substance as well as the enzyme controlling the precipitation of the tooth salts. The present results indicate that the formation of the ground substance of either

dentine or enamel involves a different mechanism than does the formation of the tooth salts.

While most grants-in-aid awarded by the Committee are authorized at the Spring meeting for the ensuing academic year, two small grants were approved at the September meeting for studies that could be completed before the end of the Committee's year, March 31, 1952. Awards were made as indicated below.*

An additional grant of \$350 was made to Dr. Gordon Nikiforuk for the purchase of needed equipment for his project on "Demineralization of hard tissues as bone and teeth by organic chelating agents".

It was reported that 153 copies have now been distributed of Dr. J. S. Bagnall's comprehensive "Bibliography on Caries Research", publication of which had been sponsored by the Committee. Distribution by sale at \$10 per copy accounted for 120 copies. Complimentary copies were sent to all Canadian dental schools and to a few other institutions approved by the Committee.

Provision was made at the September Session whereby it will be possible to arrange for some grantees or their research assistants to attend the annual meeting of the International Association of Dental Research at which reports on their investigations may be presented and where the grantees may gain useful information in connection with their own projects. Three Dental Research Special Travel Grants, not to exceed \$250 each, were authorized for this purpose. Applications for the current year must be filed before December 15, 1951 with the Secretary of the Associate Committee on Dental Research, National Research Council, Ottawa, Ont.

The Spring meeting of the Committee is to be held March 3-4, 1952 in Ottawa.

*Project	No.	Grantee	Short title	Amount
DR 40	Dr. L. A. Funt	Effect of tooth eruption and function on the growth of the mandible and facial complex on cats		\$325
DR 41	Dr. H. Jenkins	A study of the dental arch form and certain of its anatomical relations in a series of clinically excellent dentitions.		300

Ectodermal Dysplasia with Anodontia

by Dr. J. P. McGUIGAN*, Halifax, Nova Scotia

ANODONTIA is recognized as a condition present in a child, where both the deciduous and permanent teeth are missing or a complete absence of the permanent tooth buds, but having some of the deciduous teeth present. Other abnormalities are present which serve to support the diagnosis of ectodermal dysplasia such as absence of sweat glands, sometimes complete absence of eyelashes and eyebrows and very fine and sparse hair on the head.

A knowledge of the organs or tissues that are derived from the ectoderm will help us evaluate the case (1) the lining of the sebaceous, sudoriferous and mammary glands; (2) the enamel of the teeth; (3) the hair and nails; (4) the nervous system; (5) the epithelium lining the air sinuses, cornea lacrimal glands, nose, parts of the roof of the mouth and the cheeks; (6) anterior lobe of the pituitary gland and (7) the epithelium of the sense organs. The condition is usually referred to as hereditary, but the existence of a positive family history is not very clear cut in some cases, consequently there are two schools of thought concerning the aetiology. The inheritance of this condition is of the recessive type appearing in the grandsons. The males in the second generation are not affected but the defective chromosome is carried by all the unaffected daughters. This would seem to indicate that the anomaly is inherited with the X chromosome of the father. In the third generation the affected or normal X chromosome may be inherited from the mother and the sons who inherit the defective X chromosomes are affected while those who do not inherit the defective chromosomes are unaffected. The daughters on the other hand may either inherit the normal or defective

X chromosome. Therefore the daughters in the third generation with the defective X chromosomes become carriers and pass the anomaly on to future generations.

The diagram in Fig. 1 shows the method of inheritance.

Accordingly ectodermal dysplasia is due to lack of development of the ectodermal tissue in general and more particularly of the dental ectoderm. The most severe cases show total lack of development of the dental lamina and as a result complete absence of any tooth development. If ectodermal development is affected after the thirty-eighth day of foetal life the dental lamina may have formed and produced buds for the development of some of the deciduous; thus using up all the genetic force in the production of these teeth and having none left to produce any permanent tooth buds.

If we are to assume that the case is not hereditary, the case remains a matter of speculation. Some believe the cause to be an injury occurring around the third month of gestation. They point out this possibility in visualizing the ectodermal development, thus they believe the development of the hair takes place about the second month of gestation and the enamel of the tooth begins to form about the same time. The sebaceous glands appear about the same time as the hair and the analogy of the nervous system appears quite early so that most of these patients are normal mentally and present no nervous disorders.

The speculation of injury early in foetal life is gradually losing significance in the face of the slowly rising evidence that ectodermal dysplasia bears an important relation to the hereditary factors.

The following case was referred to

*Associate Professor of Children's Dentistry and Lecturer in Dental Histology and Embryology, Dalhousie University.

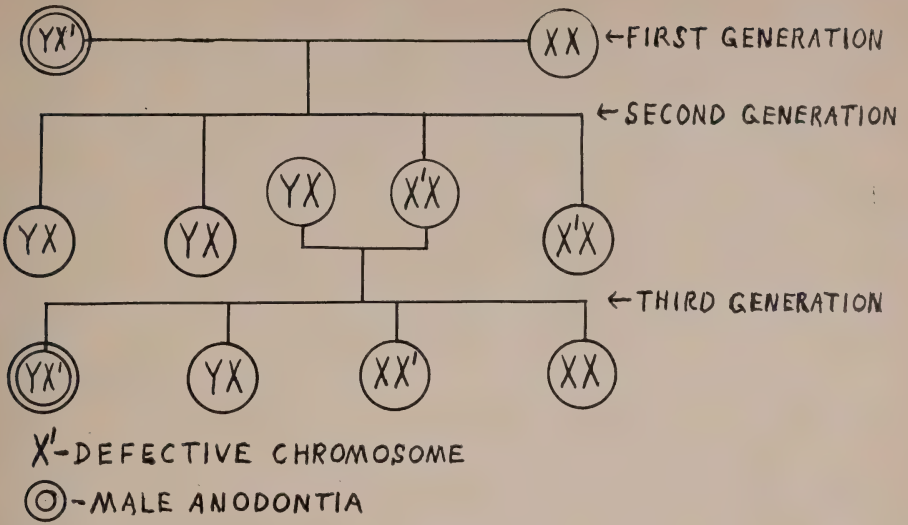


FIG. 1



FIG. 2

me by Dr. W. W. Woodbury. A blond boy four years of age, small in physical development, prenatal history negative, delivery normal. Parents' history and family history as far as could be ascertained, showed no dental anomalies. This boy showed very sparse hair on head, eyelashes and eyebrows, nails very well developed, skin dry and nose appeared normal. Profile showed some lack of development with some protrusion of the lips. He showed no evidence of sweat glands and micturated every twenty minutes. Total anodontia in the mandible with the following teeth erupted in the maxillae, deciduous first molars, right and left central incisors and left canine. Fig. 2. Extra oral radiograms were taken which showed some unerupted teeth present. Individual films could not be obtained in order to establish with certainty which teeth

these were. No teeth or tooth buds were present in the mandible. All erupted teeth were poorly developed and cone shaped with poorly formed cusps on the deciduous molars. This child has since developed a complex and takes unnecessary chances in the presence of his playmates.

I advised complete removal of all teeth present and restoration of the mouth to function and aesthetics with dentures to be remade periodically to allow for proper development of the mandible and maxillae.

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Memorial Dental Clinic Established in Nova Scotia

by W. GORDON DAWSON, D.D.S., D.D.P.H., Halifax, Nova Scotia

THE Doctor Gurdon Robert MacKay Memorial Hospital for Shelburne County (Dental Clinic) was officially opened on September 26, 1951.

HISTORY

This dental clinic was made possible by the generous bequests of the late Dr. and Mrs. Gurdon R. MacKay. Dr. MacKay was born at Ohio, Shelburne County. When he was about 25 years of age he went to the United States where he studied dentistry and practised his profession in Boston for many years. He became an American citizen and married an American girl. For many years previous to his death in 1945, Dr. and Mrs. MacKay spent their summers in Shelburne. Dr. MacKay was very fond of his native county and his feeling was shared by his wife. It was his desire that his estate should be used eventually to found a modest hospital for Shelburne County, and that his summer residence should form the nucleus of this hospital. His will left

the bulk of his estate to his wife with a request that she in turn carry out the hospital plan. Mrs. MacKay lived until 1948 and saw Roseway General Hospital opened at Shelburne in 1946.

Since there was no need for two hospitals, Mrs. MacKay modified the original plan and left the estate she had inherited from her husband plus \$5,000.00 of her own funds to found a Memorial Dental Clinic.

A local Board of Trustees was named by Mrs. MacKay's will to administer this Memorial. This Board have at their disposal

- (a) The spacious MacKay residence and grounds on King Street, Shelburne.
- (b) The annual income from the MacKay estate which is held in trust by a Massachusetts Trust Company.
- (c) Funds up to \$20,000 are made available from the estate if needed for alterations to residence and purchase of dental equipment.



MacKay Residence. Dental Clinic Entrance at Right Side of House.

One wing of the MacKay residence has been converted into a dental office. This office has two operating rooms, dark room, laboratory, business office, wash room and reception room. This suite has a separate entrance and is equipped with modern dental equipment including x-ray.

To supplement the annual income which is insufficient for full-time operation of this clinic, the following plan of operation has been adopted. The MacKay residence and dental office has been rented to a resident dentist, Dr. E. M. Banks. Dr. Banks is employed on an hourly basis to operate the Memorial dental clinic for the mornings (3 hours) of school days during the school term. The balance of Dr. Banks' time will be devoted to private practise.

POLICY

This dental clinic is intended to provide as much dental care as possible for the children of Shelburne County

not at the present time receiving regular dental attention.

The first year of operation — Preschool, Grades I and II will be eligible for treatment. It is hoped to increase the scope of the clinic by carrying on treatment in the second year for those children in Grade III who visited the clinic the year before. This progression will continue until the clinic capacity is reached.

Each community will have to make their own arrangements for transporting the children from that community to and from the dental clinic. An adult from the community should accompany each group of children and be responsible for discipline of the group awaiting treatment.

The policy of this dental clinic will be to render as complete a preventive dental service as is possible. Every child attending the clinic will be given thorough dental examination and tooth cleansing annually. Hopelessly diseased teeth will be extracted and those

teeth that can be restored with cement and silver amalgam fillings will be restored—local anaesthetic will be used when necessary; no general anaesthetics will be given. Prosthetic and orthodontic appliances, gold inlays, crowns and extensive root canal treatments will not be attempted.

Every community participating in this dental clinic must have a dental committee that will assume the responsibility for arranging registration, dental appointments and transport.

GEOGRAPHIC BACKGROUND

Shelburne County has a total population of approximately 14,000. There are three small towns, 16 villages and 33 rural schools. These communities, for the most part, are situated along the East-West paved highway.

Fishing is the main industry and the population is largely rural. Highway buses run twice daily in each direction and there is one daily train each way.

For several years there were two dentists practising in the county; for the past two years there has only been one resident dentist in the county, with an intermittent dental service one or two days weekly given by two dentists from the next county.

The local Board of Trustees consists of a group of five business and professional men resident in Shelburne and a representative of the Provincial Department of Health, the Director of the Division of Dental Services.

The last named is the technical advisor to the Board of Trustees.

The development of this clinic, believed to be the first one of this type to be established in Canada through private philanthropy, is being watched with a great deal of interest by the Dental Public Health Committee of the Nova Scotia Dental Association.

This Committee has taken an active interest in the preliminary planning necessary to get this clinic under way.

The next great step in clinical Dentistry for Children will be the realistic recognition of the basically essential need of complete dental care for the pre-school child; this concept must obviously be accompanied by a dynamic program of penetrating activity, so that the deed will consummate the thought.—Joseph H. Kauffmann.

So many of the disorders of sight and sound to which man is liable have their seat and origin in the purely mechanical parts of the apparatus, ear and eye, that we overlook the truth of cerebral, visual and auditory reception, interpretation, and memory, but the fact remains that we see and hear with the brain.—R. J. A. Berry, *South African Dental Journal*.

With efficient help and thoughtful planning, no man past the age of forty should spend more than five days per week in his office with frequent periods off for recreation. As has been said "It is Later Than You Think" and the time you may be forced to take off will not be enjoyed. The ladder of life is full of splinters and you do not feel them until you begin to slip.—John V. Brown in *Jour. of Missouri State D. Assoc.*

The lessons of paternalism ought to be unlearned and the better lesson taught that while the people should patriotically and cheerfully support their Government, its functions do not include the support of the people.

Grover Cleveland, Inaugural Address—March 4, 1893.
per *Jour. Michigan State D. Assoc.*

"Nutrition comes before Education. It is wasteful and even cruel to force education on half-starved children, and teeth come before talents."—Sir James Crichton-Browne.

The Forum

THE DIAGNOSIS OF ORAL MANIFESTATIONS OF SYSTEMIC DISEASE

by WILLIAM J. SIMON, D.D.S., M.S.D.

Summary of paper in Minn. Dist. D. Jour., Sept. 1951

The diagnosis of oral manifestations of systemic diseases resolves itself into a discipline of:

1. Observation of the lesions and the visual appraisal of the patient.

2. The recording of the data regarding the date of onset, mode of development, symptomology, treatment, if any, and past medical history.

3. Reflection upon these data, which may lead to an impressional diagnosis.

4. The request, in writing, for medical consultation and, when neces-

sary, laboratory aids such as roentgenograms, haematologic, or bacteriologic studies, blood chemical and serologic findings, or biopsy studies.

5. Summarization of all data in preparation for a plan of treatment.

Even after careful summarization, it may not always be possible to make a definite diagnosis. This, however, is not a reflection upon the ability of the medical and dental professions, but rather should be an incentive for greater medico-dental research.



ANTIBIOTICS*From A.M.A. Journal per F. Rev. of Chicago D. Soc*

Today, the practitioner of medicine will be found wanting unless he understands clearly the experimental background for the clinical use of the many antibiotics which are, or soon will be, at his disposal. His knowledge must be such that he unerringly administers the antibiotic of choice.

Five years ago this was easy; one recommended the use of penicillin if it appeared to be indicated. Four years ago the situation became more complicated owing to the introduction of streptomycin. Now the situation is further complicated with the choice of bacitracin, aureomycin, chloromycetin, or terramycin, in a wide variety of infections. And new ones will soon be available.

The increasing range of efficacy of these agents against infectious processes, the ease with which they can be administered and the certainty of their beneficial action, have completely altered the medical, social and economic aspects of infectious diseases. Since certain of the antibiotics, such as aureomycin, are admirably suited for home use, the costs of hospital and other medical care are often avoided. With the increase in our knowledge of possible prophylactic uses for these agents, they are becoming valuable in preventing certain infectious processes from developing after exposure has taken place, and in minimizing the seriousness of others.

The practitioner should know whether a given antibiotic has a primarily bactericidal or primarily bacteriostatic effect against micro-organisms. This knowledge permits him to gauge more accurately the dosage and duration of therapy. Penicillin G is the most effective against grampositive micro-organisms *in vitro*, and aureomycin and streptomycin are close seconds.

When aureomycin is administered by mouth in a single dose of moderate size, the maximal absorption, as measured by its concentration in the blood serum,

appears to take place in from two to four hours and detectable quantities of the antibiotic may be present in the blood stream for at least twelve hours . . . Much is unknown about the pharmacology of aureomycin and further progress in this field awaits the determination of its chemical structure.

Chloromycetin is relatively insoluble, and for that reason oral administration is preferred. When a single moderate dose is given by mouth, the concentration in the blood reaches a peak within two hours and then declines; at eight hours its presence is no longer detectable . . .

When terramycin is administered in a single dose of 2.0 g. to fasting individuals, it can be found in the blood serum within thirty minutes and may remain detectable for more than twenty-four hours. In this respect, terramycin differs from either aureomycin or chloromycetin . . .

In summarizing current thought concerning the selection and use of antibiotics, we shall confine ourselves to the systemic use of antibiotics, because we think their employment as topical agents is generally unnecessary and often dangerous. Sensitization of an antibiotic can readily be produced by its local use.

What is first choice today may not be recommended at all a year hence, so fast is work progressing. But though our recommendations are liable to revision as experience increases or new antibiotics are developed, the physician should bear in mind certain fundamental rules.

1. Adequate doses should be employed.

2. Do not overtreat the patient.

3. Remember that in most instances the response should be prompt. As a rule, if definite clinical improvement is not evident within one to three days, the physician should question further therapy with that particular antibiotic.

4. While infecting micro-organisms

frequently, and often quickly, develop step-like resistance to streptomycin, and less frequently to penicillin, they seldom develop a similar resistance to aureomycin or chloromycetin.

5. In severe or fulminating infections, if two or more effective antibiotics are available, use them simultaneously. The aim of all antibiotic therapy is to bring the infection under therapeutic control as speedily as possible.

6. Do not give antibiotics on a hunch that they might do some good. Use them only when they are indicated.

In rheumatic subjects, intramuscular administration of procaine penicillin G before and after extraction of teeth, removal of tonsils, or any operative procedure around the nose or throat, will materially aid in preventing development of subacute bacterial endocarditis.

AN APPRAISAL OF "SELF HARDENING" RESINS IN OPERATIVE DENTISTRY

by E. W. SKINNER, Ph.D., Professor of Physics, Northwestern University Dental School

Summary of paper in *W. Virginia D. Jour.*, Oct. 1951

Our present knowledge of the resin employed for direct resinous restorations is inadequate. New knowledge is being acquired rapidly, and the dental practitioner should read the literature as it is published in order to keep up-to-date. On the basis of our present knowledge, the following tentative statements can be made:

1. The essential chemical difference between the direct resinous filling materials and the ordinary acrylic resin is the method by which the polymerization is brought about in the two cases. The final product is essentially the same in both cases.

2. The greater the bulk of the filling and the greater the rate of polymerization, the greater will be the temperature rise during polymerization.

3. The temperature rise which generally occurs in a restoration normally prepared in operative dentistry will not be sufficient to harm the pulp.

4. In general, the greater the temperature rise during polymerization or hardening of the restoration, the better will be the physical properties of the filling.

5. The autopolymers shrink during hardening, but it is probably possible to reduce the amount of shrinkage as it is manifested clinically.

6. The increase in dimension of the restoration during water sorption is not sufficient to compensate for the curing shrinkage.

7. The change in dimension of the direct resinous filling during changes in temperature in the mouth when hot and cold foods are masticated may be sufficient to affect the efficiency of the restoration deleteriously.

8. The restoration with the direct acrylic resin filling materials is normally very aesthetic to the eye. This property can be expected to be permanent.

9. The material is insoluble in the mouth fluids. From the standpoint of solubility in the mouth fluids, and permanent aesthetics, this type of material is superior to silicate cement.

10. The surface hardness, strength and resilience of the acrylic restoration are less than the similar properties possessed by other materials used for restorative purposes by the operative dentist. The use of acrylic resin at points of stress is contra-indicated.

11. According to our present knowledge, the direct acrylic resin restoration should give service, provided that its limitations are recognized and that the proper technique of manipulation has been followed.

"Keep a green bough in your heart and God will send you a singing bird."

Louise King

CANADIAN DENTAL ASSOCIATION

REGULATIONS GOVERNING THE AWARD OF STUDENTSHIP

1. The Canadian Dental Association through its Research Committee offers financial assistance in the form of "Studentships" to undergraduate or graduate students who have given distinct evidence of capacity for original research (or who have won distinction in scientific study during their University training) and who desire to prepare themselves further for scientific research and teaching by continuing their study in the sciences fundamental to their research fields.

2. The Studentships are available on equal terms to men and women for the purposes of

(a) An academic year of special study in the fundamental sciences at a recognized University. Grants will be made on an annual basis and applications for renewal will be considered.

(b) Consultations with recognized authorities. Applications in this category will be considered only under exceptional circumstances, such as to obtain assistance for occasional attendance at special meetings of research workers or special conferences with workers in the same field.

3. Studentships are awarded to applicants who are deemed best qualified by the evidence submitted. They are not intended to provide opportunities for graduates in dentistry to prepare themselves as specialists in certain fields of dental practice.

4. The age of the applicant and marital status will be important considerations when making an award. Previous training will also be taken into account.

5. Application for a Studentship must be made by the candidate to the Research Committee of the Canadian Dental Association and addressed to this Committee, care of the Secretary, Canadian Dental Association.

6. Application forms are available at the Canadian Dental Association office on request.

7. An applicant shall submit a transcript of his University record together with a statement from his sponsor who may be the Dean of a Dental School or head of a scientific department within a university, showing that, in his estimation, the applicant is worthy of training for scientific dental research.

8. The candidate shall state the institution at which he intends to study and describe specifically the plan of study he intends to pursue. A statement from the head of the institution at which the student intends to take his training, stating the institution's willingness to accept the student, should be submitted.

9. Applications for the ensuing year should be received before the first of May.

10. Applicant is required to make a comprehensive statement regarding his finances. He must state how much extra financial assistance he requires to complete the proposed course of study, how much of the total expense, if any, is covered by salary from the institution where he intends to study and how much by means of personal expenditure, loan, etc. Payments will be made during the period the Studentship is held.

11. All apparatus and materials purchased with grants become the property of the Canadian Dental Association and must be returned to the Canadian Dental Association at the end of the tenure of the Studentship unless a specific release has been provided for, either to the individual or to a specified institution.

12. Part-time teaching in a university department or faculty may be considered favorably during the terms of tenure of the Studentship.

13. Interim reports on the student's progress may be requested from the Dean or head of the department in which the student is working. The Canadian Dental Association reserves the right to discontinue the Studentship after reasonable warning is given the student, if progress reports are unsatisfactory. The final report prepared by the student and supported by the Dean or head of the scientific department, indicating in some detail the results accomplished in the study, must be submitted to complete the tenure of the Studentship.

14. Funds may also be made available at the discretion of the Committee for the publication of scientific articles.

Address all communications to:

The Secretary,
Canadian Dental Association,
234 St. George Street,
Toronto, Ontario.

ANNOUNCEMENTS

● NATIONAL RESEARCH COUNCIL OF CANADA

ASSOCIATE COMMITTEE ON DENTAL RESEARCH—GRADUATE DENTAL RESEARCH FELLOWSHIPS

The National Research Council of Canada offers a limited number of Fellowships for promising graduates in dentistry.

The Fellowships are designed to provide advanced training and experience in research in one of the sciences basic to dentistry. Fellowships will not be awarded to graduates in dentistry for the purpose of providing practical training and experience in the clinical branches of dentistry.

FELLOWSHIPS of the value of \$1,500 per annum will be open to graduates in dentistry with high academic standing, who have spent at least one year in postgraduate training.

FELLOWSHIPS of value of \$1,600 to \$2,500 per annum will be open to graduates in dentistry who have had experience in research work. The value of the Fellowship will depend on the candidate's training and achievement in an original research.

In general, the conditions relating to qualifications, the submission of applications and the conditions governing tenure of these awards, will be found in the regulations governing Dental Research Fellowships awarded by the National Research Council.

Copies of the above regulations and application forms, may be obtained from the Dean of the Faculty of Dentistry or upon application to the National Research Council, Ottawa.

Applications must be submitted to the Awards Officer, National Research Council, Sussex Street, Ottawa, not later than 1 February.

● UNIVERSITY OF TORONTO, FACULTY OF DENTISTRY, CONTINUATION COURSES FOR GRADUATES IN DENTISTRY.

OPERATIVE DENTISTRY—Feb. 18-22, Enrolment limit 10. Tuition Fee \$75.00.

DENTAL RADIOLOGY—Feb. 25-March 1, Enrolment limit 12. Tuition Fee \$75.00.

DENTAL CARIES, AETIOLOGY AND PREVENTION—March 6-8, Enrolment limit 6. Tuition Fee \$50.00.

ENDODONTICS—March 10-14, Enrolment limit 8. Tuition Fee \$75.00.

Address enquiries to the Dean, Faculty of Dentistry, Univ. of Toronto, 230 College St., Toronto 2B, Ontario.

● Applications will be received up to March 1 for **THE GRADUATE COURSE IN ORTHODONTICS AT THE UNIVERSITY OF TORONTO**. The course commences on September 2, 1952, and continues for a period of seventeen months. Enrolment is limited to six graduates of approved dental schools. The applicants must possess satisfactory scholastic standing acceptable for enrolment for the Master of Science (Dent.) degree in the School of Graduate Studies of the University of Toronto. This course is under the direction of Dr. Robert E. Moyers, Professor and Head of the Department of Orthodontics.

For further information and application forms address all enquiries to:

The Dean, Faculty of Dentistry,
University of Toronto, 230 College St.,
Toronto, Ontario, Canada.

● SHORT EVENING COURSES FOR PRACTITIONERS, FACULTY OF DENTAL SURGERY, UNIV. OF MONTREAL.

A series of short courses will be conducted during evenings for busy practitioners in Oral Surgery, Periodontia, Endodontia and Complete Prosthesis, each session being of two hours duration.

Oral Surgery—8 lessons—February 5, 7, 12, 14, 19, 21, 26, 28.

Periodontia—6 lessons—February 5, 7, 12, 14, 19, 21.

Endodontia—8 lessons—February 5, 7, 12, 14, 19, 21, 26, 28.

Prosthesis—10 lessons—February 5, 7, 12, 14, 19, 21, 26, 28, March 4, 6.

For information, apply to the Dean, Faculty of Dental Surgery, University of Montreal, 2900, Mount Royal Blvd., Montreal 26.

● **THE PERIODONTIA DEPARTMENT OF NEW YORK UNIVERSITY COLLEGE OF DENTISTRY ANNOUNCES ITS FULL TIME COURSE IN PERIODONTIA AND ORAL MEDICINE** for one academic year, September 22, 1952, to May 22, 1953, leading to a certificate. The course is limited to four. Half-time two year courses are also given as well as a three weeks refresher course beginning June 2, 1952. All courses are under the direct supervision of Dr. Samuel Charles Miller.

For information write to Secretary, Postgraduate Division, New York University College of Dentistry, 209 East 23rd Street, New York 10, N.Y.

ANNOUNCEMENTS

- **GOLDEN JUBILEE MEETING OF THE CANADIAN DENTAL ASSOCIATION IN CO-OPERATION WITH THE BRITISH COLUMBIA DENTAL ASSOCIATION IN VANCOUVER, B.C., JUNE 15-18.**

The registration fee of \$15.00 may now be sent to Dr. Chas. M. Whitworth, 218 Medical-Dental Building, Vancouver, together with requests for hotel reservations. An outstanding program is already assured and the entertainment committee is working hard to provide some real West Coast hospitality and entertainment for visiting members.

- **DENTAL COUNCIL OF CANADA EXAMINATIONS, MAY 26-31** at the College centres. Oral examinations will be held at a time convenient to the Oral Examiners.

- **THE 35TH ANNUAL CONVENTION OF THE ONTARIO DENTAL ASSOCIATION** will be held in the Royal York Hotel, Toronto, **MAY 11-14, 1952.**

- **FOURTH MARITIME DENTAL CONVENTION,** Lord Beaverbrook Hotel, Fredericton, N.B., **JULY 7-9.**

- **28TH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** will be held in Montreal **OCTOBER 22-24, 1952.**

- **THE GRIEVE LECTURESHIP;**—The Dental Fraternity will be pleased to learn that the halfway mark has been passed in the \$5000. objective for establishment of the George Grieve Memorial Lectureship Fund. The Grieve Memorial Annual Lecture will serve as a stimulus to future accomplishments in the field of preventive dentistry and at the same time perpetuate the memory of a great Canadian dentist.

Those who wish to share in this worth while undertaking may send contributions to Dr. Don W. Gullett, 234 St. George Street, Toronto 5, and he will forward a receipt for income tax purposes.

The George Grieve Memorial Committee

- **CHICAGO DENTAL SOCIETY,** Feb. 4-7, 1952.

- **MINNESOTA STATE DENTAL MEETING** in Saint Paul, **FEB. 18-20.**

- **INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH:** Founded by William J. Gies, December 20, 1920. The 1952 General Meeting will be held at Broadmoor Hotel, Colorado Springs, Colorado, March 21-23, in collaboration with the meeting of the American Association of Dental Schools at the same place on March 24, 25 and 26.

- **AMERICAN ACADEMY OF DENTAL MEDICINE** in Montreal **MAY 29-31.**
All interested dentists and physicians are invited.
National Sec.—Dr. Wm. M. Greenhut, 124 East 84th St., New York 28, N.Y.

- **ALUMNI-ALUMNAE ASSOCIATION OF THE EASTMAN DENTAL DISPENSARY** second reunion Sunday, **APRIL 6,** at the Eastman Dental Dispensary in Rochester.

- **AMERICAN DENTAL ASSOCIATION** Convention, St. Louis, Mo., September 8-11, 1952.

- **1952 CONGRESS OF THE EUROPEAN ORTHODONTIC SOCIETY,** July 14-17 in Amsterdam. Pres. J. A. C. Duyzings, Utrecht, Netherlands.

Definition of a celebrity: One who works all his life in order to be well known and then goes through back streets wearing dark glasses in order to avoid being recognized.—Mundo Argentino.



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Editorial

INFLATION—DON'T IGNORE FACTS

Lincoln said, "If we would first know where we are and whither we are pending, we could better judge what to do and how to do it." The trouble is we don't know where we are pending and we don't know what to do, or how to do it.

It is stated that an architect was irritated at the inartistic design of a house which he was obliged to pass daily on his way to work so he bought the house, lived in it and it never bothered him again because he never saw it. With inflation it is different. We can look at the deterioration of the dollar—and the end is not yet—, the high cost of living, and the insecurity of old age which we thought was secure. We can see our life insurance policies becoming less valuable; old age benefit schemes are not quite so attractive as they were, and we can reason with ourselves that the normal will soon return and give reasons for the faith that is within us. Yes, we can look at it and even worry about it, but we cannot escape it by buying the house. Inflation is a fact no matter how we may explain the fact and "An ugly fact can always slay a beautiful hypothesis."

In about 1945 it cost twice as much to build a house as in 1939. In 1950 it required \$100 to buy what \$58 bought in 1939. When hostilities broke out in Korea a further impetus was given to the forces of inflation. The money must come from somewhere to assemble, train, and equip large groups of fighting men. It costs about three million dollars to build a B-36 bomber. This bomber will be destroyed in combat or later junked. The money used to build the plane, which money was borrowed by the government, goes back into circulation. This money must compete in the open market for scarce

goods which helps to bid the prices up. Such procedures, unavoidable as they are, increase the spending power of the country without increasing the supply of saleable products. Therefore, prices are bound to rise. And, of course, this bomber is only a spot in the total defence bill.

The dentist cannot escape this inflationary movement. Not only are living expenses higher, but office expenses are also pyramiding; salaries are up; supplies have reached a new high; rents have kept pace. What can the average dentist do about it? He can do the following:

1. Take an interest in government and condemn unnecessary expenditures.
2. Be prepared to pay higher taxes and encourage the policy of pay-as-we-go, using cash from current taxes.
3. He must save more. The more he saves, the less he spends, curbs higher prices. Just buy what he really needs.
4. By efficient methods and techniques in his office he can do more work than before.
5. By equipping an extra operating room much more can be done with the same effort.
6. By employing more auxiliary help he can step up his production.
7. He can, and should, increase fees.

A few years ago the South African Dental Association voted to keep dental fees as they were in order to do their share to prevent inflation. This was a most praiseworthy decision. Since then that may have been changed but, in any case, it is not practical in this country at the present time. Dentists' fees have risen, and rightly so, but they have risen at a slower rate than the total cost of living. The Consumer's Price Index compiled by the U. S. Bureau of Labour Statistics reveals that dentists' fees in that country rose 59% between 1935-39 and June 1951, while the over-all cost of living rose 85%. Medical care and drugs advanced 55%. Highest increases of all in the health field in the U.S.A. have been in hospital rates, up to 161.4% since 1935-39. In this same interval in the U.S.A. clothing costs have risen 104%, house furnishings 112.5% and transportation 71.6%, and the situation is not particularly different in Canada.

Yes, dental fees should be raised. For those patients whose income has kept pace with the increased cost of living, by all means increase the fee for if you do not you are doing an injustice to yourself and your family. However, show consideration to those patients of long standing where income has not kept pace with the times, who may be retired and living on a pension, or annuity, and who are facing very difficult times. In these latter cases be charitable. Do as Tennyson said:—

"Arise and get thee forth and seek

A friendship for the years to come."

Yes, generally speaking, fees should be definitely increased but this should be done with the Golden Rule in mind. Someone has said:—

"The biggest and best game on earth is the game of the Golden Rule. Two or more can play at a time. To begin the game properly,

there is one thing you must always remember—YOU MOVE FIRST. Another interesting feature is, you do not have to beat to win. You win when you make a friend, and the only way you can make or hold a friend is by first being one."

There are other investments which are infinitely more valuable than the accumulating of dollars. Dr. Fred Helsabeck, Dean of Lynchburg College writes:—

Take time to live: It is the secret of success.

Take time to think: It is the source of power.

Take time to play: It is the secret of youth.

Take time to read: It is the foundation of knowledge.

Take time for friendship: It is the source of happiness.

Take time to laugh: It helps to lift life's load.

Take time to dream: It hitches the soul to the stars.

Take time for God: It is life's only lasting investment.

M.H.G.

BOOK REVIEW

Nutrition For Today, by Elizabeth Chant Robertson, M.D. Ph.D., Nutrition Research Laboratory, Hospital for Sick Children, Toronto and Department of Paediatrics, University of Toronto with a recipe section compiled by Eastella Langdon, Director, Canadian Broadcasting Corporation School of the Air. Three hundred and fifty pages. Published by McClelland and Stewart Limited, Toronto.

This book is well written and presents an authoritative practical and common sense approach to the problem of nutrition. It will be found most interesting reading for the dentist and an excellent reference for the mother of a family. There are 19 chapters in the book all of which contain much factual information. The important food factors, proteins, fats, minerals, vitamins and carbohydrates are dealt with in non-technical language and related to common foods. Foods are grouped as follows: fruits and vegetables; cereal products; milk and its products; fish liver oils; meats, fish and fowl; eggs; fats; sugar and other

sweets; iodized salt and water. There are chapters on calories, overweight and reducing and underweight; meal planning and economical buying; children's meals and schoolday lunches. Then there is a chapter dealing with nutrition and "Tooth Decay"; and finally a long chapter of home recipes which perhaps is not interesting to the dentist but certainly would be in his household.

This book fills a great need in bringing up to date our knowledge of nutrition. It provides a positive approach to the caries-susceptible patients' dietary problem. It is not enough to say to them.—"Avoid sweet and starchy foods as much as possible especially candy and sweet drinks between meals." Such advice is too negative.

The cover page title "Good Food Makes Good Sense"—invites the prospective reader's interest. The book deserves wide distribution not only among dentists but in the homes of their patients as well. It merits better than casual reading.

T.R.M.

ROYAL CANADIAN DENTAL CORPS NEWS

1. Brigadier E. M. Wansbrough, DGDS, and Major S. K. Oldfield of The RCDC School attended the Annual Montreal Fall Clinic 21-23 November 1951.
2. Colonel C. B. H. Climo, DDGDS, recently inspected RCDC Active and Re-

serve Force Units in the Western Provinces.

3. Major V. R. Farrell has been posted to DGDS (AG Br.), Ottawa. Major Farrell was born in Grimsby, Ont., attended the University of Toronto, graduating in

Dentistry in 1920, and was appointed to the Corps in 1940.

4. Major I. A. L. Millar has been promoted to the rank of Lt.-Col. Lt.-Col. Millar was born March 13, 1913, in Matapeia, Quebec. He matriculated from Springhill, N.S. High School, then entered Dalhousie University, Halifax, N.S. After graduation in 1938, Col. Millar practised in Liverpool, N.S., until he was commissioned in the CDC December 1, 1939. During the Second World War he served in Canada, the United Kingdom and the European theatre. In 1949 he was selected to attend a post-graduate course at the U.S. Naval Dental School, N.N.M.C., Bethesda, Md. On the completion of this course, he was posted to the instructional staff of The RCDC School, Ottawa, and in April this year to the AG Branch at AHQ. His present appoint-

ment, Senior Specialist No. 13 Coy RCDC, permits the full-time practice of service dentistry.

5. No. 27 Canadian Field Dental Detachment RCDC (AF) located in Germany has Major W. I. Whitehead as Commanding Officer. The Dental Officers are Major J. Durand and Captains L. G. Craigie, G. MacDougall, H. J. Chartrand, J. E. Hughson, G. E. Windsor, F. D. Charman, J. A. A. Patenaude, L. H. Richardson, Captain B. J. H. Marchant is the Quartermaster.

6. Captain S. G. Bagnall has recently been promoted to the rank of A/Major. Born in Halifax, N.S., Major Bagnall is the son of Dr. J. S. Bagnall, Dean of Dalhousie Dental School. Major Bagnall was appointed to the Corps on graduating from Dalhousie University in 1945. He is now stationed at Rivers, Man.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

Dental Research:— Associate Committee on Dental Research of the National Research Council in Ottawa:—For the information of dentists in Canada the following pertinent points with respect to the above committee may be of interest.

1. The association committee on dental research was organized approximately six years ago with Dean R. G. Ellis, Faculty of Dentistry, University of Toronto as chairman.
2. The main function of this committee is to encourage and support dental research in Canada by financially assisting qualified research workers who are conducting specific projects.
3. Present regulations governing the activities of this committee indicate a preference for the laboratory "type of research rather than clinical" studies.
4. During the last six years about \$200,000 has been allocated by this committee in support of a large number of dental research projects, several of which have been undertaken in each of the dental schools in Canada. Approximately \$35,000 has already been allocated during the current year.
5. Recently this committee recommended to the National Research Council that three travelling scholarships be made available for the current fiscal year in the amount of \$250 each to assist grantees under the Dental Committee program, or their assistants in travelling to the Annual Meeting of the International Association of Dental Research, when this is considered by the committee to be of value to the progress of their respective projects.

6. The National Research Council through the Associate committee on dental research is obviously making a large contribution to dental research and to the future of dentistry in Canada. It is contributing money in support of specific research projects, providing qualified men are available to do the research. **It will not accept the responsibility for training men to do research.**

7. It therefore seems axiomatic, that if Canadian dentistry is to continue to profit by the relatively large financial grants from the National Research Council and other sources, men trained to do research in dental fields will have to be available in increasing numbers.

SCHEDULED MEETINGS

Executive — The Executive will meet beginning Monday, February 11, 1952 at C.D.A. Headquarters.

Council on Dental Education — The Council will meet Thursday and Friday, February 7 and 8, 1952 at C.D.A. Headquarters.

Annual Meeting—Vancouver—June 15-18, 1952. Plans are well advanced for the Annual Meeting in Vancouver next June. **The dates of the Convention are June 15-18, 1952.** The Board of Governors will meet beginning at 2.00 p.m. on Wednesday June 11.

Questionnaires have been forwarded to all members of the Association east of Manitoba respecting arrangements for special train reservations. These forms

should be returned promptly in order that commitments can be made for sufficient railway cars.

Hotel reservations should be requested directly from Dr. C. M. Whitworth, Secretary, Convention Committee, 218 Medical-Dental Bldg., Vancouver, B.C. Rooms will be allotted upon a priority basis on receipt of the registration fee of \$15.00, payable at par in Vancouver.

All those attending the Board of Governors Meeting will make their reservations as stated above.

Air Travel—If those wishing to travel by air will indicate this fact on the transportation questionnaire, arrangements will be made to notify T.C.A. Group notification will facilitate the securing of reduced fares.

LONDON CONGRESS

July 19 to 26, 1952

International Dental Federation

Patron, His Majesty The King

The arrangements for the XIth International Dental Congress to be held in London in July 1952 are rapidly approaching completion. It is anticipated that representatives from at least thirty countries will be present at the Congress.

Outline of Program

Scientific

- (a) Twenty Reports by outstanding members of the profession from all over the world (see B.D.J. Supplement, October 16, 1951, for full list) discussed by forty official openers.
- (b) Symposium on
 - (i) Orthodontics
 - (ii) Full Dentures
 - (iii) Control and Prevention of Dental Caries
- (c) Demonstrations: Over one hundred selected from offers received from dentists throughout the World.
- (d) Section for dental research workers to discuss their mutual problems.
- (e) A Scientific Exhibition of outstanding interest.
- (f) Television and continuous program of films.
- (g) An Oral Hygiene Exhibition.
- (h) A Dental and Allied Trades Exhibition.

Social Events

- (a) Grand Ball at the Albert Hall.
- (b) Congress Banquet at Grosvenor House.
- (c) Numerous Official Receptions.
- (d) Conducted Tours to Oxford, Cambridge and places of historic interest in and around London.

Forms of Application for Membership of the Congress can be obtained on application to The Secretary, Canadian Dental Association, 234 St. George St., Toronto. An attractive booklet "Congress Information" is also available.

Thos. Cook and Sons, 75 King St. W., Toronto 1, Ontario have been appointed transportation agents for the C.D.A. Space is being held for applicants by this firm. As the Congress occurs during the busy part of the tourist season, applications should be made at once for reservation

of air or boat passage and hotel accommodation. Please address inquiries respecting reservations directly to Thos. Cook and Son.

Statement by Research Committee On The Relationship Between Sugar and Dental Caries

(Original statement prepared by Dr. Gordon Nikiforuk, Faculty of Dentistry, University of Toronto, at request of Research Committee)

The interest expressed in this subject by the public and professional groups has led to many statements, some of which are confusing and lack experimental support. This statement attempts to review and elucidate the experimental data as it relates to sugar consumption and dental caries.

Recent reports from Notre Dame (12), where experiments on "bacteria-free" animals are in progress, indicate that dental caries cannot occur without the presence of bacteria. Kite, Shaw and Sognnaes (9) have reported that caries-susceptible rats, when fed a caries-producing diet, by stomach tube, fail to develop caries. Control litter mates which were permitted to eat the same diet ad libitum, for identical periods of time developed dental caries. Therefore, the presence of bacteria in the mouth and a suitable food for the bacteria are two prerequisites without which dental caries cannot exist.

A. What is the experimental evidence regarding sugar consumption and the incidence of dental caries?

1. The occurrence of caries among primitive tribes, though variable, is less than in civilized communities. Addition of food containing a high proportion of sugar to primitive diets results in an increased number of carious lesions in the population. These changes appear to be independent of the nutritional adequacy of the diet as a whole (1, 13, 14, 15).

2. It has been demonstrated, that reduction of excessive sugar in the diet of individuals who have active caries results in a marked decrease in the number of carious lesions (2, 6).

3. It has never been possible to produce typical carious lesions in experimental animals without inclusion of sugar in the diet (20).

4. During World War II, the marked reduction in the caries rate of many countries directly paralleled the availability of refined sugars (10, 16, 19).

B. How may sugar exert its detrimental influence on teeth? All available evidence suggests that sugar acts as a substrate for bacterial enzymes. Bacteria obtain their energy by degradation of the sugar and excrete a metabolic by-product in the form of organic acids. The acid thus produced may cause decalcification

cation of the inorganic mineral of the tooth (3). Indirectly, therefore, evidence that incriminates acid as one of the mechanisms of the carious process also incriminates sugar. Such evidence is obtained from numerous sources.

1. Histological similarities exist between a carious lesion and acid decalcified areas of a tooth (7).

2. The thick leathery dentine, seen often in caries lesions, is dentine from which the mineral salt has been removed (7). It is difficult to envisage any mechanism that may cause demineralization in the oral cavity, other than acid decalcification.

3. After the ingestion of sugar, the pH on a carious surface drops from 7.0 to 5.0 within a few minutes (18). This pH is low enough to decalcify a tooth (4).

4. Bacteriological caries activity tests indicate that persons who are caries-active possess a bacterial flora which has high acid-producing abilities (5, 7).

It must be emphasized that the total quantity of carbohydrates consumed is not the prime determinant of caries activity. More important is the type of carbohydrate eaten (only sucrose, glucose and fructose, of the commonly used carbohydrates, are fermented by oral bacteria at a very rapid rate), the concentration of the sugar and frequency of eating (8, 11, 17).

Evidence indicates that a strong relationship between sugar consumption and dental caries exists. It is not, however, axiomatic that people who eat sugar will develop dental caries; all people who are exposed to ragweed do not develop hay-fever. Sugar is one of the important factors involved in the caries picture; it is not the only factor. The caries process is influenced by many variables, some of which have not been elucidated. A more complete explanation of all observed facts will only be possible when, through research we can better evaluate the influence of dental caries of such factors as: environment of the teeth, tooth structure and substance, nutrition, prenatal tooth development, systemic conditions, and occurrence of caries free individuals.

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WHO Action On Dental Program

Fourth World Health Assembly

The Fourth World Health Assembly adopted the following resolution on dental hygiene:

"having noted the report of the Director-General on Dental Hygiene, made in accordance with the request of the Third World Health Assembly.

Considering that a Dental Health Program is within the terms of the general program of work for a specific period,

Requests the Executive Board and the Director-General to:

- (1) include such a program in plans for the future work of the Organization taking into account the discussions in the Committee on Program;
- (2) start as soon as possible dental health activities in connection with demonstration services as may be financially feasible; and
- (3) encourage the training of dental health personnel through the World Health Organization fellowship program."

Acting on this resolution the Executive Board of WHO passed a resolution requesting the Director-General:

- (1) to encourage the training of health personnel in preventive dentistry through the World Health Organization fellowship program;
- (2) to seek the collaboration of the International Dental Federation in the task of collecting information on preventive dentistry;
- (3) to include a program of dental hygiene in the program and budget for 1953.

NEWS FROM THE PROVINCES

SASKATCHEWAN

College of Dental Surgeons of Saskatchewan:—Owing to the retirement of Drs. L. F. Hare of Moose Jaw and M. J. MacDonell of Saskatoon, they were replaced by election by Drs. Duff Leask of Moose Jaw and F. R. Smith of Saskatoon.

To Drs. Hare and MacDonell, we wish to extend sincere appreciation for excellent services rendered thereby to our profession. Dr. MacDonell was President of the Council for three years and displayed unusually good leadership.

To their successors, Drs. Leask and Smith, we extend our congratulations upon the honour thus placed upon them and our appreciation in their acceptance of the responsibilities involved.

The Councillors are:

President, Dr. W. F. Hancock; Vice-President, Dr. R. D. Reid; Secretary-Treasurer, Dr. L. J. D. Fasken; Councillors: Drs. J. P. Whyte, A. Duff Leask, and F. R. Smith. Chairmen: Dental Health Committee, Dr. Hancock; Public Relations, Dr. Smith; Health Insurance Studies, Dr. Reid.

Congratulations Dr. Hancock, and we all wish you a most successful and happy term of office.

The Regina Dental Society heard with considerable pleasure and benefit a paper on Root Canal Therapy presented by Dr. E. F. Smith.

The Saskatoon Society have commenced again the Telephone Extension Course and had in attendance many men from outside points. L. D. H.

ONTARIO

The Annual Winter Clinic of the Toronto Academy of Dentistry was held on November 22, at the Royal York Hotel. Once again this popular program was well attended, and Dr. Gordon Chalmers and his committee deserve much credit for their splendid planning and arrangements.

Two out of town clinicians took part in the program: Dr. J. Orton Goodsell of Saginaw, Michigan, and Dr. Roy G. Hemmerick of Kitchener, Ontario. Dr. Goodsell made a most interesting and valuable presentation of intra-oral surgical procedures as an aid to dental prostheses. This was well illustrated by coloured slides. The theme of Dr. Hemmerick's talk centred around some ideas and techniques, not in common use, which had helped the clinician to solve some of the difficulties which he had encountered during twenty years of practice. Models and coloured slides were used to demonstrate.

Clinicians from Toronto ably rounded out the well-balanced group-clinic activities. Those who took part were—Dr. P. J. Anderson, Dr. J. T. Crouch, Dr. M. N. Rockman, Dr. R. W. Marshall, Dr. E. R. Bilkey, Mrs. C. G. McGowan, Dr. H. A. Hunter, Dr. C. H. M. Williams, Dr. J. B. Macdonald, Dr. G. C. Hare, Dr. S. Copeland and Dr. H. W. Reid. Because of his illness a paper prepared by Dr. T. R. Marshall was ably presented by Dr. J. A. Bothwell.

One of the highlights of the program was the presentation by Dr. P. G. Anderson whose wealth of material and commendable teaching style were outstanding. Those who attended this clinic will be refreshed and enthused as they return to their practices.

Filling out the professional aspect of the day was the fine array of table demonstrations given during the evening session, when dentists, dental nurses and dental assistants, dental technicians, and members of the dental trades presented many worth-while ideas and suggestions which were most instructive.

As the day developed, the theme of conservation became more and more pronounced. Preventive and conservative dentistry were the keynotes of all of the group-clinic discussions. The Progressive-Conservative party was returned with a record breaking majority to the Ontario Legislature, and the guest speaker at the luncheon adopted conservation as the subject of his discourse. "The Life and Loves of the Muskie" was the topic used by Mr. Pete McGillen to introduce his plea to the profession to practise game and fish conservation. Mr. McGillen, a journalist, is the only full-time Outdoors Editor on any Canadian newspaper and during his interesting talk gave ample proof to those attending that he merits this distinction.

The 1951 Winter Clinic may well take its place among the better editions of its predecessors. It was a pleasant day well spent in professional learning and fellowship. R. W. M.

The December meeting of the **London and District Dental Society**, held in Hotel London on December 8, was addressed by London's own J. Fred M. Kennedy, D.D.S., M.D. Dr. Kennedy, a man of exceptional ability in the field of oral surgery, has practised in London since his graduation in 1923, during which time he has acquired an enviable reputation throughout the province. In 1947, after an intensive course of study at the University of Western Ontario Medical School, he received the degree of Doctor

of Medicine and since that time his practice has invaded the fields of Dentistry and Medicine alike.

Dr. Kennedy spoke to the Society on a very timely topic—"Malignancies of the Head and Neck." He prefaced his remarks with the statement that of all deaths occurring as a result of cancer, 14-15% occur from cancer of the head and neck. Consequently, he stressed the important responsibility that rests squarely on the shoulders of the dental practitioner to recognize cancerous lesions of the mouth and face at a very early stage. Dr. Kennedy's presentation was divided into several phases: (1) Causes of Cancer; (2) Mode of Spread; (3) Examination of Patient; (4) Diagnosis; (5) Treatment; (6) Prognosis.

The most important causes from the standpoint of the dentist concern ragged and sharp teeth which prove irritating to cheeks and lips. Ill-fitting dentures and irregular filling margins also provide serious irritations to the gum tissue. The spread of the disease via the lymphatics in the head and neck, blood stream to other parts of the body and direct penetration was discussed at great length. He stressed the importance of a thorough examination to determine any changes in surface tissue appearance or texture, or any external or internal swelling or irregularity. The invaluable aid offered by the x-ray was mentioned as an adjunct to visual examination. A correct diagnosis is arrived at after compiling a knowledge of the duration of the lesion, associated pain, appearance of the lesion and a biopsy report. In this connection he paid tribute to the excellent biopsy service operated by the Canadian Cancer Foundation. He discussed surgery and radiation, the latter including x-ray, radium compounds, and more recently the cobalt bomb which has been installed in Victoria Hospital. Dr. Kennedy hailed the cobalt bomb as a remarkable improvement in Cancer treatment and a decided asset to the city which is rapidly gaining prominence as a cancer treatment centre.

Regarding prognosis, he tended to be very optimistic about a patient's recovery if the lesion is discovered at an early stage. Of course, this is dependent also on the age of the patient, duration of the lesion and extent of the spread of disease, but again he emphasized the importance of early recognition of the disease to ensure maximum treatment benefits. Dr. Kennedy's address was illustrated with slides showing various phases and types of lesions of the oral structures.

During the course of the meeting, which was chaired by the President, Dr. Harold Dickson, congratulations were

extended to Dr. Cecil Strachan on his recent promotion to the rank of Colonel of the Advisory Board of the Royal Canadian Dental Corps and his appointment as a Fellow of the International College of Dentists. About 70 dentists from London and District, as well as guests from Sarnia and Ottawa, were present at the meeting. J. A. Guest.

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A New Program of Dental Treatment, Teaching and Research has been arranged in connection with the **New Hospital For Sick Children** in Toronto. The announcement was made on December 3 jointly by the president of the University, Dr. Sidney Smith, and president of the Hospital Board of Trustees, Mr. R. A. Laidlaw.

Dr. Stewart A. MacGregor is director of the dental service and he will be assisted by Dr. Gordon Nikiforuk. Three staff dentists have been appointed: Dr. J. M. Carefoot, Dr. M. J. Crockford and Dr. C. D. Beirel. Consultants to the service named at this time are: Dr. R. G. Ellis, Dean of the Faculty of Dentistry, Dr. W. G. McIntosh, periodontist, and Dr. J. H. Johnston, Professor of Dental Oral Surgery and Anaesthesia in the dental faculty.

The program of care will include diagnostic and consultative services among patients in the public wards together with subsequent treatment if the attending physician decides the general health condition of the patient permits. Emergency treatment will be provided outpatients who have recent medical histories from the hospital.

The teaching program will include instruction to both medical and dental students and will be carried out on both undergraduate and graduate levels. Both teaching and research projects will be a joint undertaking of the hospital and the faculty of dentistry.

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The Faculty of Dentistry, Toronto staff letter reports that the Board of Governors of the University have approved the establishment of a Division of Dental Research. A grant of \$16,000 has also been made available by the Board for the rehabilitation of the fifth floor of the Dental Building to better accommodate research activity. It is expected eventually that a full-time chairman will be appointed to guide the administration of the Division.

The program envisaged under this New Division of Dental Research will require substantial financial support. Already contributions from the W. E. Mason Foundation of \$5,000 and from the O'Keefe Foundation of \$6,000 provide stimulation and encouragement.

Much more will be needed for proper functioning of this work.

The Dental Public Health Conference held in the faculty on November 20 and 21 was attended by 40 health workers. Those attending included 7 medical health officers, 14 public health nurses and 19 dentists.

The Ladies Auxiliary to the Toronto Academy of Dentistry held its first luncheon of the season at the Royal York Hotel. Dr. Russell Butler spoke briefly on dental public health in Ontario and Dean R. G. Ellis gave an illustrated progress report on results of treatment for needy children with dental abnormalities. This work has been made possible through funds raised by the auxiliary.

On January 17, at 8:30 p.m. a social evening is being arranged for members of the Academy and the Auxiliary at the War Amputations Building. All members are invited to keep this date in mind.

A public meeting in connection with the launching of a **Dental Public Health Education Program for Barrie** and area was held November 21 with an attendance of 300.

The speaker was Dr. Stewart A. MacGregor of Toronto.—*Barrie Examiner*.

Fluoridation of Fort Erie's water supply was authorized November 19 by the Council. The dentists of Fort Erie are 100 per cent behind the movement.—*Fort Erie Times Review*.

QUEBEC

Dr. C. R. Seller, President of the Montreal Dental Club had this to say, in part, in his **Address to the 27th Annual Fall Clinic of the Montreal Dental Club**:

"In the light of our experiences and in view of the many unsolved problems with which dentistry is confronted in the present, our first duty is clearly that of research. It offers one of the greatest opportunities ever given to any profession. Notwithstanding the progress in dentistry, the dental ills of mankind are still almost universal. Their cost in discomfort, deformity, and ill health, is beyond compilation. No one can measure the far-reaching effects of a condition such as this. The problem is one that cannot be solved by present-day methods of practice. Some way will have to be found to check dental disorders at their source. This can be done only by a long-range program of research, it is the public who must support it.

"Prevention represents another opportunity. Dental ills, unlike most others to which the human body is heir, create conditions which are not remedied by the usual processes of nature. They bring about conditions that are to a large extent irreparable except by outside interference. It is this situation that has given birth to the art of dentistry, which has now almost reached the acme of perfection. While further progress will doubtless be made in this respect, this is not the road along which dentistry must travel in the future. The art of dentistry must, in increasing measure, give way to preventive dentistry. To a considerable extent this waits on research. Much, however, can be done while waiting for research to catch up with present-day needs.

"Dentistry must provide for a wider distribution of dental care among those of our population who are unable to provide for their own needs. In this, the profession should take the initiative. It must not be driven to this course by outside agencies. For its own soul's sake it should assume leadership in any program to expand the boundaries of oral health service. This responsibility, fortunately, is being recognized by our governing bodies, and steps are being taken to meet it. It is the duty of every member of the profession to wholeheartedly support these bodies in this effort.

And lastly, if these things we have been discussing are to be put into operation in the years ahead, they will provide vastly increased opportunities for service. The door of opportunity stands wide open, but as always, only those will be permitted to enter who are willing to pay the price of admission with toil, sacrifice, and service.

"In the words of Virgil 'The noblest motive is the public good.'"

The 27th Annual Fall Clinic of the Montreal Dental Club was officially opened by the president, DR. C. R. SELLER at the first luncheon session on November 21, 1951. Following a word of welcome, Dr. Seller stated that in spite of all our efforts in the improvement of treatment, the incidence of dental diseases was steadily on the increase and that the challenge is there for us to accept—to see that positive forward steps are taken in the field of research and preventive dentistry.

Under the general chairmanship of DR. M. L. DONIGAN, the Fall Clinic committee provided over three hundred dentists from Canada and the United States with a program covering practically every phase of dentistry and presented in a manner that left little or nothing to be desired.

Dr. W. W. Wainwright of Chicago addressed the clinic the opening day presenting a paper entitled "Dental Applications of Atomic Energy," in which he discussed the work that is being done in this fascinating field. This writer came away feeling that what Dr. Wainwright and others are doing will assuredly play a vital role in the future of dentistry and medicine.

In the second general session Dr. R. N. Albinson of Minneapolis presented a well-planned paper on the subject of "Practice Management" in which he discussed the down-to-earth fundamentals of building and maintaining a practice.

In the final general session, Dr. A. G. Racey of Montreal presented what he called "A Short, Short Course in Oral Pathology." In this day of rapid advances being made in the fields of endodontics, periodontics, preventive dentistry, and all allied research, it is so important to know and understand the histology and pathology of the oral cavity. In the short time at his disposal, Dr. Racey reviewed briefly the whole caries process and pulp pathology through to periapical involvement, and discussed the origin and development of cysts, anomalies, etc., of the oral cavity.

A three-session progressive clinic entitled "Factors Essential to a Satisfactory Full Denture Service" was presented by Capt. A. H. Grunewald, Bethesda, Md. and was well received by his audience. Capt. Grunewald gave practical consideration to all the factors essential to the rendering of a satisfactory full denture service from the impressions to the finished case. With the aid of motion pictures and slides, he also stressed the presently known factors most responsible for failures in full denture service.

Six well-planned registered clinics were presented to smaller groups: Dr. R. N. Albinson of Minneapolis presented a paper, aided by a film, on the subject of "Mucostatics," in which he discussed the non-displaceability of soft tissue and the role of surface tension.

Dr. J. H. Johnson, Toronto, covered just about everything the general practitioner meets in his "A Practical Review of the General Practitioner's Problems in Oral Surgery."

Dr. E. R. Romine of Detroit admirably demonstrated the role that good sound operative procedures play in the "Relation of Operative Dentistry to Periodontal Disease."

Dr. F. R. Shier, Boston, made the cavity preparation, matrix adaptation and the use of calcium hydroxide look easy in his "Operative Dentistry for Children."

Dr. R. S. Voorhees, Rochester, showed the causes of successes and failures in our offices in his "Oral Roentgenology Up to the Minute." He also discussed the newer type x-ray machines.

Commander R. B. Wolcott, Bethesda, Md., took a "negative approach" in "Unsound Amalgam Procedures" showing how to avoid common errors in cavity preparation, matrix adaptation, insertion of the filling, and its carving and polishing.

On the opening morning of the Fall Clinic, some twenty table clinics were presented, covering just about every phase of Dentistry. Something "new" was noticeable, however, in that there were two table clinics on "Gold Foil." One of these was a presentation by Drs. Lamb and Gordon of Montreal on the Class V Gold Foil.

In a lighter vein, diversion was provided in the form of three luncheons with speakers and entertainment; a well-attended dinner dance and a special tea for the ladies. In addition, the Montreal Dental Nurses and Assistants Association held its 17th annual convention in conjunction with the Fall Clinic.

To the president, Dr. C. R. Seller, the perennial chairman Dr. M. L. Donigan and all their assistants should go an enthusiastic "well done" for a splendid convention, carried on as in the past, in a well-organized, but friendly fashion. Thanks should also be extended to all the essayists and clinicians for their fine and thorough presentations.

Postscript:—Dr. Donigan tells me that the 28th Fall Clinic will be held in Montreal next October 22, 23 and 24, and that it should be better than ever. We suggest that you mark off the dates in your 1952 appointment book now . . .

R. F. Harvey

Separate meetings of the **Mount Royal Dental Society** and the **Montreal Dental Club** were held November 12 to hear the first session of the **Telephone Extension Series** of the University of Illinois. The evening was devoted to a discussion of the aetiology and control of caries presented by some of the foremost investigators in the field. The attendance at each meeting was large and enthusiastic in its reception and all were agreed that the material was of supreme importance and most interestingly presented.

The members of the **Mount Royal Dental Society** attended an all-day clinic on November 16 given by Dr. J. H. Kauffman of New York on the subject of "Dentistry for Children." Dr. Kauffman is a recognized leader in the profession and in his discussion he men-

tioned first the factors involved in prevention of caries for everyone, and discussed the questions of fluorine and the ammonium ion. He then considered children specifically and enlarged on the technique of "Prophylactic Odontotomy." He concluded his talk by giving his views on toothbrushing technique and on toothbrushes and displayed his unique collection of toothbrushes. The meeting was well attended and the speaker held his audience by his informative presentation. S. Silver

PRINCE EDWARD ISLAND

At the annual meeting of the **Dental Association of Prince Edward Island** held on October 25 in Charlottetown, the following officers were elected: President, Dr. J. C. Gallant, Charlottetown; Vice-President, Dr. H. E. Clark, Summerside; Sec.-Reg.-Treas., Dr. Heath McIntyre, Charlottetown. Members of the Council are Dr. L. I. Duffy, Charlottetown and Dr. Vincent Grant, Summerside.

Dr. Harold M. Cline and Don W. Gullett, President and Secretary of the Canadian Dental Association addressed this meeting. Charlottetown Patriot

BRITISH COLUMBIA

"Preventive Orthodontia for the General Practitioner" was the topic of an address given to the **Victoria Dental Society** at the November meeting. The speaker was Doctor Lloyd Chapman, Orthodontist, of Vancouver.

At this meeting, considerable discussion took place on the question of fluoridation of communal water supply. The Society is prepared to endorse fluoridation, providing it is undertaken only on a well-controlled experimental basis. A statement is being prepared for the press on the subject.

Golf awards won by Doctors Webster, Daysmith, Horne and James, at the annual fall tournament, were presented to the winners.

Reports of various study clubs were presented at fall meetings of the **Vancouver and District Dental Society**.

The **Ferrier Gold Foil Club**, under the chairmanship of Doctor D. J. Sutherland, at its meeting of October 11, completed its 15th year of operation.

The **Inter-City Gold Foil Club**, with Doctor Carl Johnson directing affairs, resumed operations with a meeting late in October.

The **Pedodontia Study Club** held its first fall meeting on October 15, when Doctor Lloyd Jacobson, Professor of Oral Diagnosis at the University of Washington Dental School, spoke on

"Cavity Preparation" and "Alloy Manipulation". Doctor Jacobson also acted as mentor for the operative meeting. This group of active workers in **Pedodontia** journeyed to Victoria for a meeting in October. Clinics presented there drew the largest attendance in the history of the city. Doctor Bob Dent inserted a Class 2 alloy in a deciduous tooth; Doctor Bob O'Neil performed a vital pulpotomy, and Doctor Mat Waterman presented a clinic on a simple cast space maintainer. Doctor Orville Wright was moderator.

The **Endodontia Study Club** meeting was held on October 29, when election of officers took place. Doctor Cliff Ames was elected President.

The **Economics Study Club** held a preliminary meeting on November 6, to be followed by a regular meeting late in November.

The December meeting of the **Vancouver and District Society** again extended the time during which the clinician would appear before the Society. The usual afternoon meeting is called for about three o'clock, but since the clinician could very well use the additional time, the meeting was arranged for one-thirty, to continue for four hours. The speaker was Doctor Arthur A. Campbell, of Walla Walla, Washington, author of three well-known text books on dental economics, and widely known throughout the United States as a capable and interesting speaker on his subject. He presented three subjects: (1) The Business Analysis of a Dental Practice (2) Examination and Estimate (3) The Day Sheets and Simplified Book and Record-Keeping.

Dental assistants were invited to attend the afternoon meeting.

By way of recreation, and to fill in time until the dinner meeting should start, Doctor Folkins arranged to present a coloured moving picture showing the Canadian Open Golf Tournament at Toronto, 1950, and a short film on "How to Play Better Golf".

The **Division of Preventive Dentistry of the Provincial Health and Welfare Department** report that, for the first time in the history of the Province, a meeting was held at which all Dental Directors of Local Health Units, the Director of Dental Health Division of Greater Vancouver Metropolitan Health Committee, the Director of Dental Department of Greater Victoria School Board and the Director of Preventive Dentistry for the Province attended. Administration problems arising from the inauguration this summer of full-time preventive dental service in several Local Health Units were discussed and

clarified. Also discussed were the role of the dental profession in Civil Defence; evaluation of dental health education material presently available, and nutrition education.

The Public Relations Committee of the British Columbia Dental Association recently called a general meeting for the purpose of discussing programs of dental public health educational material, and methods of presenting such material to the public, through the press, radio, and other channels. A representative of a commercial public relations agency was present, and an outline was presented to the meeting, suggesting various means of presenting the material to the public, and indicating the probable cost of such programs.

Those present at the meeting seemed to be unanimous in agreement that a program of public relations should be prepared and instituted. A motion presented indicated approval in general, and passed the matter on to the executive committee for study and action.

The January meeting of the **Vancouver and District Dental Society** always takes the form of a "Home Town Talent" Night. This year is no exception. A very fine program was arranged, and a wide variety of subjects were covered.

Chair Clinics were:

"Amalgam Restoration in Distal of Upper Cuspid" by Dr. Robert Scharff.

"Rubber Dam Technique, Clamp and Separator Application" by Dr. Norman Ferguson.

"Rubber Dam Technique for Children" by Dr. Gordon Jinks.

"Class V Gold Foil" by Dr. Ludlow Beamish.

Table Clinics:

"The Diagnosis and Surgical Treatment of Intra-Oral Pathology" by Dr. Zack.

"I Am a Bleeder, Doctor!" by Dr. Folkins.

"Orthodontics," by Dr. Ryan.

"To Simplify Radiographic Exposure—the Technique and Discussion," by Dr. Kirk Oviatt.

"Endodontia," by Study Club on Endodontia.

"Pedodontia—Space Maintenance," by Pedodontia Study Club.

"Direct Acrylic Restoration — Brush Technique," by Dr. Terry Parsons.

"Periodontia," by Dr. Eric Nordin.

"Immediate Dentures," by Dr. Clay Hallman.

"Indirect Posterior Inlay-Hydrocolloid

Technique," by Dr. John Gansner.

"Pulp Capping Techniques, using Calcium Hydroxide," by Dr. C. Johnson.

"A Three-Quarter Crown Technique," by Dr. Walter Sproule.

"Anaesthetic Solution," by Dr. Walter Kynoch.

The **Vancouver Board of Trade** recently honoured the only surviving member of their original Board of Trade, in the person of Dr. R. Mathison, of Kelowna, B.C. Dr. Mathison was graduated from the University of Pennsylvania in 1897, and still practises in the Okanagan City.

ALBERTA

The following is taken from the **Annual Report of the Alberta Pensioners Dental Services**.

For the service it performs the Dental Association receives from the Government remuneration at the rate of 26¼ cents per month for each person who is an old age pensioner, an old age pensioner's dependent, a recipient of mother's allowance, a dependent of a recipient of mother's allowance, blind pensioners, and dependents of blind pensioners.

This money is paid because everyone of the above is entitled to receive dental treatment from the Association, and it is paid on the basis of all who are entitled to receive this treatment, the number as of March 31, 1951, totalling 25,490. Of this total during the past year, there were only 2,958 who took advantage of this scheme. It is due to so small a percentage, 11.6 per cent this year, who took advantage of the scheme that profits are accumulating.

The scheme covers a group of people from whom the dentist might not receive complete remuneration for his services, if they were to go to him as normal patients, but under this scheme he is given a fair recompense for 100 per cent of the services rendered.

The whole success of this service depends upon the dentists' willing cooperation and the percentage of entitled participants who receive treatment.

The following shows a list of the totals of the different operations authorized for the period of April 1950, to March, 31, 1951, inclusive:

Amount Authorized	\$64,957.10
Extractions	6,739
Amalgam Fillings	4,507
Silicate Fillings	927
Gold Restorations	38
Denture Repairs	478
Periodontal Treatments	157
Vincent's Treatments	0
X-Rays	1,364
Prophylaxis	503

Examinations	570
Miscellaneous	220
Denture Relines	315
Partial Dentures	110
Bridges	8
Full Dentures	1,262

The number of persons who were eligible for treatment at the start of this scheme, (June 1947), was 19,188 compared to 26,227 eligible at March 31, 1951.

The greatest increase in the number of persons eligible comes in the old age pensioners and their dependents group. This is the most vulnerable spot in the whole scheme, since the work that this group demands is mostly denture work. During the past year out of a total cost for dental services provided of \$60,758.60, the money spent on this group amounted to \$34,883.50 which is approximately 57 per cent of the year's expenditure.

In the old age pension group there is quite a turn-over of patients. Approximately 200 cards are taken out of the file monthly, yet over the past four years there has been an increase monthly in this group of a little over 100 above the loss, and it will be progressively the same. Just what arrangements will be made if the new legislation comes into effect eliminating the means test for people over 70 years of age, one is unable to say at the present time. It is thought that this class will demand all entitlements, possibly because of their thrifty nature, which up to the present time had gained them enough money to keep them from receiving the old age pension.

A summary of operations for the 12-month period ending March 31, 1951, is as follows:

Total number of completed cases	
of all types	2,958
Total cost of all types of completed cases	\$60,758.60
Average cost per case overall	\$20.54
Total amount received	\$80,296.90
Total cost of dental services	\$60,758.60
Total administration cost	6,084.43
Total net profit	13,492.62

Operating administration charges are approximately 7.5 per cent.

Out of a total of 268 dentists actually performing these services for the Association, there was an average of 132 dentists

each month of the year who received payment for from one to sometimes 3 or 4 accounts a month.

The question of reviewing the schedule of fees is very much to the front as complaints have come in to the office in this respect. However, the Directors hesitate to recommend revision at the present time, as it involves the whole solvency of the scheme and might even force the termination of the contract with the Government.

SCHEDULE OF FEES

Authorized diagnosis and report	\$ 2.00
Treatments	
Prophylaxis (includes scaling)	2.00
Periodontal (maximum of four) each	2.00
Vincent's (maximum of five) each	2.00
Emergency (palliative)	1.00
Pulp cap	1.00
Radiograms and diagnosis	
Single intra-oral film	2.00
Full mouth	10.00
Surgery	
Local anaesthesia	1.00
General anaesthesia	5.00
Extraction (each tooth)	1.00
Minor oral surgery, including impactions and fractures. Detailed report and radiograms required.	
Extrirpation of pulp, treatment and filling of root canal	6.00
Single tooth restorations	
Amalgam (1 surface)	2.00
Amalgam (2 surfaces)	3.00
Amalgam (3 surfaces)	4.00
Silicate	3.00
Inlay, gold (1 surface)	6.00
Inlay, gold (2 surfaces)	9.00
Inlay, gold (3 or more surfaces)	12.00
Repairs to dentures	
Repair, vulcanite (complete or partial, base only)	3.00
Repair, acrylic resin (complete or partial, base only)	4.00
For each tooth replaced	1.00
Reline Denture (complete or partial)	
Vulcanite	10.00
Reline Denture (complete or partial)	
Acrylic	15.00
Partial Denture Acrylic only	30.00
Gold Clasp including rest	4.00
Gold Bar (Lingual or palatal)	10.00
Partial dentures will not be authorized unless a study model of the mouth is sent in with the chart for authorization.	
Complete Denture (Acrylic only)	40.00
Of the above fee the Association pays only half (\$20.00) and the patient pays the other half.	
Bridges	
¾ Gold Crown	12.00
Gold and porcelain pontic	8.00

In the case of orthodontia work this will only be authorized in very exceptional cases where the amount of work is very small.

GENERAL NEWS

Dr. S. C. Black, Halifax, has been appointed by the Civil Service Commission to take charge of a **Dental Health Program Among the Indians** of the Maritime Provinces.

The federal health department's Indian Health Services now employs eight dentists full-time. The chief function of

these dentists is to promote dental education among the children and to provide them with preventive care even over and above any curative attention.

Medical Schools in the Netherlands are reeling under the impact of an unprecedented influx of American students,

who have created bewildering problems for faculties and student organizations alike. The medical department of Leiden, Amsterdam, Utrecht and Groningen Universities have so far accepted 193 students from the United States, and the number is to increase to 250 by the time classes start early in October. The stream started when the American Medical Association decided last year to recognize Dutch degrees for physicians wishing to practice in the United States.

—New York Times.

Six dentists from Thailand are to receive graduate training in various dental specialties at U.S. dental schools during 1951-52, in a project arranged jointly by the Economic Cooperation Administration and the U.S. Public Health Service, according to a USPHS news letter.

Cancer and all malignant neoplastic diseases in Washington, D.C., are now reportable to the District of Columbia health officer.

The Mayo Clinic has reported that **Cortisone** given orally reduced rheumatic symptoms in 99 of 100 cases of rheumatoid arthritis. The required oral dose of cortisone was approximately the same or only slightly larger (a sixth to a fourth) than the intramuscular dose in most cases. Because of the prompt but short action of cortisone given orally, the daily dose was given in three or four parts at appropriate intervals. Results of this study emphasize the importance of regulating the dosage to meet each patient's particular need.

Side effects of similar nature resulted from the oral and the intramuscular administration of cortisone. For reasons given, the relative incidence of side effects resulting from corresponding oral and intramuscular doses could not be determined accurately in this study. In only 2 patients did gastrointestinal irritation follow oral administration of tablets of cortisone.

The oral administration of cortisone in small doses, short of significant side effects, appears to be useful for long-term investigative management in many cases of rheumatoid arthritis.

Government Medicine — the Wrong Road:—In the Sept.-Oct. 1951 issue of *American Economic Security* Most Rev. Karl J. Alter, Archbishop of Cincinnati, has this to say in part about socialized medicine.

"Certainly there could be no question of contesting the rights and the duties of the state in the matter of public health and especially in favour of those who are

less fortunate — of those whom poverty renders less provident and more exposed.

"A just legislation on hygiene, preventive medicine, and adequate and sanitary housing, the attempt to provide everyone with the best medical care, the elimination of social plagues such as tuberculosis or cancer, a legitimate preoccupation for the health of young generations, and many other measures that encourage the health of the body and spirit in the framework of wholesome social relations — all this cooperates toward the prosperity of a nation and its interior peace.

"The debate should not be joined on the question of whether there are health needs not now satisfied nor on the catastrophic impact of prolonged and serious sickness on the family budget — nor even on the advantage and necessity of prepayment of medical and hospital costs. All these aspects of the problem are accepted without debate by social students.

"The real issue is whether we can achieve a better result with a limited state program in conjunction with voluntary insurance and private initiative or whether we must have a universal compulsory, tax-supported program under direct Governmental control.

"The experience with the health services now being rendered by government on the local, state, and national levels does not offer much encouragement to a further extension of government services in this field.

"It is altogether exceptional to find the quality of medical and health service as high in the government-controlled institutions as in the equivalent institutions conducted under private or voluntary auspices.

"The medical men of England are not satisfied with the present setup and are currently threatening to strike unless their fees are increased. This means, of course, increased taxes in spite of the fact that the budget is already far in excess of anything originally contemplated.

"The argument is not that there should be no further development of facilities with more taxes but that the rosy forecasts of costs has proven to be extremely fallacious.

"Other forecasts may, in the end, be equally fallacious as to the future health standards of the entire nation under a nationalized system of health.

"The first question which must be discussed in any sound public health program is whether the necessary facilities and personnel actually exist.

"If adequate facilities and adequate personnel do not now exist, then no program under any auspices can be a success.

"If the Government would provide more grants-in-aid for the building of hospitals and medical schools and establish a form of subsidy for doctors and nurses in the sparsely settled areas with access to health clinics to be developed in these rural areas, then it would be rendering a most constructive service to the nation.

"Such a program is the real test of the sincerity of purpose on the part of Government.

"If, however, the objective of the Government program is to get control of, rather than help to extend, health services, then, of course, a compulsory health tax and nationalized administration are necessary.

"We need government aid to provide the additional services. We do not need control.

"The provision of hospital and medical care can well be left to voluntary efforts such as Blue Cross, Blue Shield, Farm Bureaus, and other forms of voluntary insurance programs.

"Anyone who sincerely wants health and hospital insurance can get it now at reasonable cost and at a figure which no government system would match.

"We say this because now we have available tens of millions of dollars of donated service which no government could ever command.

"The medically indigent are now and always will remain a direct charge on government.

"The real issue is political control and nationalization versus private and voluntary control.

"Government cannot be permitted to evade its share of responsibility, but government should not be permitted to assume the dominant responsibility.

"Let government help financially to support a program of universal health service, but let voluntary institutions and agencies provide the service.

"The government can fulfil its own particular responsibility without taxes, but let them be included in the regular budget without the pretense of a phony insurance system."

Canadian Medical Association Announces New Health Plans:—The Health Insurance Digest has this to say, in part, about this plan.

"Long conscious of the growing desire for some workable type of universal health insurance scheme, yet aware of the dangers inherent in a state-managed medical plan, the Canadian Medical Association has cautiously evolved a plan of its own announced in June.

"It is hailed on all sides as 'the answer to socialized medicine.' The Plan will be administered by Trans-Canada Medical

Services and will provide for country-wide prepaid medical care.

"The Canadian Medical Association believes medical care insurance should be available to all Canadians with the state paying the premium—in whole or in part—of those unable to pay for themselves. If it is necessary to work with the Federal Government in attaining these objectives, Trans-Canada would act as the representative of the plans. It is believed that in this way better and more economical medical care can be provided for all Canadians than could be done through a government-run plan.

"The new Plan is aimed at lifting the fear of doctors' bills from Canadians. It is expected to cost a family of three about \$72 annually or \$36 for a single person. The Government will be asked to pay the full cost of premiums of some sections of the population, and part on a sliding scale for others, based on income. Those who can afford to do so would be called on to pay the full amount.

"The Plan's first job is to arrange a system of reciprocity between the provinces so that persons belonging to the plan could get full coverage in any part of the country. Six provincial non-profit prepaid medical care groups form the basis of Trans-Canada Medical Services.

"It is hoped to do away with extra-billing, so far a feature of many prepaid medical plans. Officials think this may be accomplished in about two years. In this way, no matter if even a score of operations a year were needed, with daily visits to the doctor, a patient would have to pay no more than the person who only sees his physician for a yearly check-up.

"Under this Plan, patients have a free choice of doctor who is paid fixed fees on the basis of the services he renders to subscribers.

"Trans-Canada Medical Services will also attempt to extend benefits to individuals who cannot get coverage in groups, in order to make the plan really national in scope. Screening for individual subscribers would be more careful; rates might be higher.

"This is not an indemnity scheme, nor an insurance plan. It offers complete medical coverage. It will protect the public and, at the same time, keep Canada's medical standards high.

"Those persons who can pay should contribute through voluntary, non-profit plans; those who cannot should receive Government aid.

"The C.M.A. hopes that, in any Governmental health program, the Government will operate through the established medical association plans.

"The doctor-patient relationship remains unimpaired by means of the new Plan."

Physicians' Incomes in the U.S.A. vary greatly according to location, says Medical Economics. It is stated that doctors in the Far West average 50 per cent higher incomes than doctors in New England, and physicians in Arizona earn twice as much, on the average, as their colleagues in Vermont.

"The fifth general assembly of the **World Medical Association** was held in Stockholm, Sweden, September 15 to 20, under the patronage of the King of Sweden One of the discussion-provoking reports presented to the assembly described **Medical Services in Australia**. This report pointed out that the medical profession of Australia had steadfastly refused to cooperate with the previous government because of its declared intention to nationalize medical services. So successful was this opposition that the government was unable to implement such plans. The governments changed and the minister for health of the new government said in part: 'Our policy aims to improve the quality of medical service in its essential factors by stimulating individual and community effort. It makes the individual a partner of the Government, not its servant. One outstanding fact that has emerged from various schemes of socialization of medicine is that Government control of medical treatment, especially the handing-out treatment for nothing, does not improve the standards of medical treatment or of national or individual health. The most that Government control has been able to do has been to retain the status quo ante. In most cases, however, there has inevitably come a steady deterioration of the morale of the people, loss of skill of

the doctors, especially general practitioners, through the enormous wastage of time in filling in forms and consequent degeneration of the health of the patients Experience of the rest of the world in regard to health schemes indicates that the most likely system to satisfy all these requirements (essential factors for success of a health scheme) is one of voluntary insurance. Voluntary insurance will prove as valuable against unpredictable sickness as it has with life, shipwreck, theft and other risks.' When these views were expressed at the general assembly meeting they were roundly supported as general principles worthy of the attention of other government officials. There seemed to be no doubt about the desire of those at the assembly to maintain freedom in medical care for the patient and physician, so that the best possible medical care could be provided without the stultifying influence of government domination." . . .

Editorial, "Fifth General Assembly of the World Medical Association," *J. of the American Medical Association*, 147:576 October 6, 1951.

The draft of a **New Social Insurance Scheme in Israel** to cover more than one million persons by the end of 1952, has been completed and is to be submitted to the cabinet. The scheme, which under the proposed law is to be administered by a National Social Insurance Authority, will provide free medical service and hospitalization to the insured and their dependents; maternity benefits; old age, widow, and orphan pensions, and disability benefits for persons unable to continue work for reasons of health.

IN MEMORIAM

Stanley Braund of Peterborough, Ontario, aged 51, died suddenly on December 4 from a heart attack.

He was graduated from the University of Toronto and practised in Milton for seven years before moving to Peterborough.

He was active in the Peterborough Dental Society, the Peterborough Club, and the George Street United Church. He was also President this year of the Stony Lake Cottagers' Association.

Dr. Braund is survived by his widow, four children, his mother, two brothers and one sister.

•
Lewis Campbell of Vancouver, B.C., aged 73, died in November. He was

graduated from Guy's Hospital, London, England, and practised with the plastic surgery branch of the Canadian Army in World War One.

He was a member of the Royal Society of Medicine and a member of the Orthodontic Society of Great Britain.

Dr. Campbell is survived by his widow, a son, a daughter and five grandchildren.

•
Col. E. B. Dowsett of London, England, president of the British Dental Association, died suddenly on November 13.

•
Will Keith Kellogg of Battle Creek, Mich., founder of the W. K. Kellogg Foundation Institute, died on October 6 at the age of 91.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

JANVIER, 1952

No 1

Technique d'anesthésie dentaire à l'aide des débimètres usuels*

par MOISE CLERMONT, M.D., F.I.C.A., R.C.P. (cert.) C.F.A.C.A., Montréal†

La plupart des anesthésies dentaires ont lieu au bureau du dentiste. L'anesthésiste doit transporter d'un cabinet à l'autre son équipement, qui consiste de l'appareillage courant pour les anesthésies au protoxyde d'azote-oxygène et de tous les accessoires nécessaires.

Le transport, l'installation et le démontage de cet équipement, plusieurs fois par jour, représentent pour l'anesthésiste une corvée harassante, susceptible d'en faire un vieillard prématuré.

L'administration d'au-delà de 9000 anesthésies dans des cabinets dentaires, depuis 1929, m'a rapidement démontré l'épargne de temps et de travail, qui résulterait de l'emploi d'un petit appareil léger et facilement transportable.

Aussi, en 1934 ou 1936, quand apparurent sur le marché les machines à gaz avec débimètres à sec, j'ai mis au point une technique spéciale d'administration du protoxyde d'azote-oxygène, pour le patient ordinaire dans le bureau du dentiste.

Vous savez pourquoi je dis débimètre à sec. C'est que nous vivons au Canada, et que l'hiver y est souvent rigoureux.

Pour la compréhension de cette causerie, permettez que je divise les anesthésies dentaires en deux classes:

1—anesthésies de courte durée, c'est à dire de dix à vingt minutes, qu'on peut faire facilement au bureau.

2—anesthésies de longue durée, qui peuvent durer de vingt minutes à deux heures, et qui, de par leur durée, sont des procédés d'hôpital, demandant une préparation adéquate du patient, une prémédication, une anesthésie intra-trachéale, et l'hospitalisation pour un ou deux jours.

Le but de cette causerie est de discuter des anesthésies de courte durée seulement.

Laissez-moi vous dire en premier lieu, qu'une anesthésie légère, soit le premier plan du troisième degré, est suffisante, pour permettre toute la chirurgie de la bouche faite dans le bureau du dentiste.

Dans ces conditions, un accident mortel ne peut s'expliquer, ni par le traumatisme chirurgical, qui est relativement mineur; ni par l'anesthésie, qui doit être très peu profonde; ni par l'état du patient, qui représente alors un risque de première classe.

Vous ne pouvez pas expliquer une fatalité dans un bureau de dentiste, autrement que par un défaut de technique, ou un mauvais choix de l'anesthésique, en un mot, par votre propre maladresse.

Je me suis servi de chacun des anes-

*Communication présentée au Congrès International d'Anesthésiologie, à Paris, le 21 septembre 1951.

†Chargé de l'anesthésie générale à la faculté de Chirurgie dentaire de l'Université de Montréal.

thésiques communément employés, soit seuls, soit en mélange combiné: l'éther, le chloroforme, le protoxyde d'azote, le cyclopropane, le chlorure d'éthyle, le vinéthène, le pentothal intra-veineux, le trichlorethylène, et même le curare,— et je suis toujours revenu au protoxyde d'azote-oxygène, comme étant l'anesthésique le plus sûr; et je crois que c'est le devoir et la responsabilité de l'anesthésiste, de choisir cet anesthésique, chaque fois qu'il peut s'en servir.

Laissons pour l'anesthésiste inexpérimenté, la syncope chloroformique, l'arrêt respiratoire du chlorure d'éthyle, l'explosion causée par le cyclopropane, ou un mélange de protoxyde d'azote-oxygène-éther, le spasme de la glotte du pentothal, etc.

Il ne sert à rien de le prévenir du potentiel d'accidents de ces anesthésiques employés pour la chirurgie dentaire au bureau du dentiste. Il fera sa propre expérience à coup sûr. Vous n'aurez qu'à suivre les nouvelles dans les journaux, ou venant de confrères, et vous aurez la réponse: mort dans la chaise d'un dentiste,—explosion dans le bureau d'un dentiste,—spasme de la glotte avec respiration artificielle, etc.

Les pionniers de l'anesthésie au protoxyde d'azote pour la chirurgie dentaire, Heidbrinck, McKesson, et plus récemment, McCarthy, et Clement, se servaient de machines capables automatiquement de délivrer une grande quantité de mélange des gaz; quantité nécessaire pour anesthésier et maintenir l'anesthésie au degré voulu, même la bouche ouverte, comptant sur le débit, c'est-à-dire la pression des gaz dans le circuit respiratoire, et la différente densité de ce mélange, comparée avec celle de l'air existant, pour prévenir la dilution des gaz par l'air.

Je me suis servi des machines à gaz Heidbrinck et McKesson, qui donnent une anesthésie satisfaisante toutes deux, dans ce champ particulier d'anesthésie.

Mais je maintiens que nous pouvons suivre exactement cette même technique, avec les débitmètres en usage courant de nos jours.

Par une simple équation, vous pouvez avoir le pourcentage du mélange anesthésique dans une minute, ou vous pouvez consulter un tableau fait à l'avance, tel que ci-dessous:

N ₂ O	O ₂	%
9500cc	cc	0 %
8500	500	5.5
7500	500	6.2
6500	500	7.1
5500	500	8.3
4500	500	10
3500	500	12.5
2500	500	16.6
2000	500	20.
1500	500	25
1000	500	33
500	500	50

Vous pouvez avoir le même tableau en vous servant de 1000cc d'oxygène au lieu de 500cc.

N ₂ O	O ₂	%
9500cc	cc	0 %
9500	500	5
9300	700	7
10000	1000	9
9000	1000	10
8000	1000	11
7000	1000	12.5
6000	1000	14.2
5000	1000	16.6
4000	1000	20
3000	1000	25
2000	1000	33
1000	1000	50

Maintenant, ayant constamment à l'esprit le pourcentage du mélange anesthésique, vous pouvez suivre la technique décrite par Heidbrinck ou McKesson, avec les mêmes bons résultats.

Ajustez le débitmètre du protoxyde d'azote à 9500cc pour vingt secondes environ, et voyez à ce que votre patient ne respire que du gaz à l'exclusion de l'air.

Maintenant, ajoutez 500 cc d'oxygène durant un autre vingt à trente secondes,—votre mélange est maintenant à 5%.

En troisième lieu, c'est à dire après ces 40 à 50 secondes d'induction, vous réduirez le débit du protoxyde d'azote à 6500-500 d'oxygène,—ce qui vous donnera un mélange de 7.1%.

Laissez votre patient absorber ce mé-

lange de 7.1% durant un autre vingt secondes.

Pour la moyenne des patients, sans prémédication, vous pouvez y aller de ce mélange pendant quelques minutes.

Si vous croyez que votre patient passe à une anesthésie trop profonde, sans nécessité, ou qu'il montre quelques signes d'anoxie, diminuez le débit du protoxyde d'azote à 5500-500 d'O₂ ce qui vous donne un mélange de 8.3%, ou même à 4500-500 d'O₂, ce qui vous donne un mélange de 10%, et ainsi de suite.

Laissez tout le temps le débit d'oxygène fixe, c'est à dire à 500 cc par minute, si vous prenez la table de 500 cc; et à 1000 cc, si vous prenez celle de 1000 cc. Ne variez que le débit du protoxyde d'azote.

Si vous croyez que vous avez besoin d'un plus grand débit de votre mélange, vous avez certainement besoin en même temps, d'un mélange plus pauvre en oxygène.

Aussi, laissez le débitmètre-oxygène à 500 cc, et augmentez votre protoxyde d'azote à :

N ₂ O	O ₂	%
4500	500	10
5500	500	8.3
6500	500	7.1
9500	500	5

J'endosse complètement l'idée de McKesson, quand il dit: "Le mélange anesthésique et la pression des gaz dans l'arbre respiratoire, représentent 95% du contrôle de l'anesthésie, tandis que le "rebreathing" constitue le reste.

La grandeur du "rebreathing bag," de même que la position des tubes d'alimentation des gaz, sont deux choses, qui sont de première importance, pour une anesthésie dentaire bien conduite.

Ceux parmi nous, qui ont déjà des cheveux gris, se rappellent bien la longue bataille que se sont livrée les anesthésistes, il y a des années, à savoir: "devrions-nous placer le 'rebreathing bag' en avant, ou en arrière des tubes d'alimentation des gaz?" Maintenant, il semble bien établi que les tubes d'alimen-

tation devraient toujours être placés entre le "rebreathing bag" et l'inhalateur,— de telle sorte que votre patient aura sur-le-champ le mélange désiré, plutôt que celui-ci soit dilué dans le "rebreathing bag" avant d'aller au patient.

Pour la même raison, la grandeur du "rebreathing bag" devrait être de 1½ litre, au lieu de 5 litres.

Je vous ai fait ces deux remarques, pour vous faire comprendre que vous pouvez facilement convertir n'importe quelle machine à gaz avec débitmètres usuels, même équipée avec un absorbeur de CO₂, avec chaux sodée,— que vous pouvez facilement la convertir à cette technique, en y ajoutant simplement un tube en forme de "Y" et un petit "rebreathing bag."

Conclusions: En conclusion, Messieurs, j'ai essayé simplement de vous décrire une technique qui est aussi vieille que le protoxyde d'azote, aussi vieille que l'anesthésie elle-même.

Car, quand nous parlons d'une technique d'anesthésie en pourcentage, je ne crois pas que nous puissions parler de vrai pourcentage, comme l'a bien dit d'ailleurs Foregger il y a bien des années.

Sans doute, c'est le patient qui est le meilleur indicateur. Et puisqu'il n'y a pas deux patients qui réagissent de la même façon, quelque débitmètre que ce soit, qu'il soit calibré en pourcentage, ou en gallons ou en litre à la minute, ce n'est qu'une mesure relative, calibrée, qui donne approximativement un certain mélange durant la période d'induction, et, subséquemment, qui maintient ce débit durant toute l'anesthésie.

Mon dernier mot sera un mot de prudence: n'essayez pas de maîtriser l'anesthésie au protoxyde d'azote en Art dentaire, sans avoir complètement la maîtrise de cette même anesthésie en grande chirurgie.

Autrement, vous vous sentirez souvent un peu comme cet homme, qui aime bien monter un pur sang, sans connaître les éléments de l'équitation.

L'endodontie: traitement scientifique conservateur des dents dont la pulpe ou le tissu périapical a été infecté

par VINCENT TREMBLAY, D.D.S., Montréal

Définition et principes:

L'endodontie est une partie relativement jeune de la dentisterie. C'est la science qui couvre toute la chirurgie et la thérapeutique employée dans la protection ou l'ablation de l'intérieur de la dent, communément appelé la pulpe. C'est un traitement scientifique, parce qu'il emprunte toutes les dernières données de la pathologie, de la bactériologie, de la radiologie, de l'anatomie, de la physiologie, et de la thérapeutique dans ses techniques.

La profession dentaire a lentement réalisé que l'extraction n'est pas la solution au problème du canal radiculaire. Le médecin a aussi appris que l'extraction n'est pas la solution pour ces cas confus, où il suspecte des foyers d'infection. Plusieurs patients souffrent encore d'arthrite, même après la perte de leurs dents. Le public réalise que les prothèses dentaires ne donnent pas toujours le rendement des dents naturelles. Parfois, le patient éveillé par la lecture d'un article scientifique insistera pour que l'on fasse l'impossible pour lui sauver sa dent.

Cependant nous ne sommes pas encore arrivés à ce stage de l'éducation dentaire du public où la dentisterie préventive est un fait accompli. En dépit de nos efforts sincères pour la pratique de la dentisterie préventive, l'exposition de la pulpe se produira souvent dans une préparation de cavité, ou sous une lésion de carie. Le besoin d'un traitement du canal est donc évident si nous voulons faire le traitement le plus utile et non le plus expédient. Des études cliniques récentes ont démontré que des dents sans pulpe peuvent être retenues sans danger par le patient. Il est important de traiter la dent sans pulpe comme une partie intégrale du corps et non simplement comme une entité séparée. Le but de l'endodontie est de

retenir la dent non seulement avec confort, mais aussi avec sécurité pour le patient. Si nous voulons éviter les critiques du passé, le traitement du canal doit être fait de façon scientifique et contrôlée. Aujourd'hui, les cas sont soigneusement sélectionnés. Nous avons une meilleure compréhension de l'histopathologie du tissu périapical. Comme en chirurgie, l'aseptie, au lieu de l'antiseptie, est mise en valeur. Nous avons le contrôle bactériologique du canal avant le remplissage final.

A la suite de traitements de canaux incomplets et de la présence fréquente d'infections chroniques à l'apex de certaines dents, quelques médecins considèrent une couronne en or sur une dent comme une menace à la santé; à leur avis, la décoloration d'une dent est une menace. Si un patient se présente avec la figure enflée, à la suite d'un abcès dentaire aigu, la seule solution paraît être l'extraction de la dent. Cependant, en dépit de cette façon radicale de traiter un abcès, l'endodontiste a recherché un moyen d'éliminer la source d'infection radiculaire en gardant la dent. Nombre de dents ont pu ainsi être sauvées et nous avons la preuve histologique qu'elles ne constituent plus une menace pour la santé. Une statistique nous révèle que de 3 à 5% des dents des étudiants américains sont absentes et de 8 à 10%, chez les étudiantes. Nous pourrions augmenter ces pourcentages pour la population étudiante canadienne. D'où la nécessité de prendre tous les moyens scientifiques de conserver les dents.

Conditions locales:

Dans la rétention d'une dent, dont la pulpe est atteinte, les conditions suivantes sont requises: 1. La dent doit être anatomiquement opérable. 2. Le canal et la dentine doivent être chirurgicalement

stériles. 3. Les canaux stériles et les tubulis dentinaires stériles doivent être hermétiquement fermés par des agents tolérables des tissus. 4. Les facteurs de santé, l'aspect économique et la position stratégique de la dent doivent justifier cette procédure.

Conditions organiques:

Ce traitement conservateur nécessite une résistance normale du patient. C'est pourquoi il est nécessaire que le dentiste se rende compte de l'état constitutionnel de son patient. Ce n'est pas la tâche du dentiste de faire un diagnostic définitif des maladies suivantes, mais simplement d'essayer par des questions adéquates de se rendre compte de l'état de l'organisme au point de vue relation avec son traitement. Le dentiste pourra souvent ainsi collaborer avec le médecin dans le dépistage de certaines conditions pathologiques. Certaines conditions organiques sont une contradiction au traitement conservateur; de plus, un grand nombre de médecins croient que la dent sans pulpe peut probablement jouer un rôle dans l'étiologie de l'arthrite rhumatoïde, la fièvre rhumatismale, les ulcères peptiques, les maladies de la vésicule biliaire, la colite ulcéreuse, l'iléite régionale, la glomérulonephrite et l'irite. Le traitement de canal ne peut être entrepris dans la période active de ces maladies, mais simplement après leur contrôle pour les maladies suivantes; syphilis, diabète, myélite, tuberculose, anémie pernicieuse, anémie secondaire ou toute autre maladie infectieuse active. S'il y a activité périapicale, on ne peut faire le traitement durant les dernières semaines de la grossesse. Dans les cas de leucémie chronique, hémophilie, hémorragie purpura, maladie de cœur rhumatismale, et autres maladies graves, le traitement de canal est préférable à l'extraction. Dans de tels cas, un drainage doit être établi et maintenu par le moyen d'une série de pansements médicamenteux insérés, et, si nécessaire, scellés dans la chambre pulpaire.

Technique stérile:

Les traitements d'endodontie demandent une technique stérile minutieuse.

Toutes les précautions et les moyens de stérilisation employés à la salle d'opération sont ici de rigueur. On emploie la chaleur sèche, 160°C pendant une heure, pour les instruments insérés dans le canal: limes, tire-nerfs, fouloirs, pointes de papier. On utilise l'autoclave, 120°C et 15 livres de pression, pour les sutures, tampons et gazes, serviettes; l'eau à ébullition, pendant 20 minutes, pour les instruments accessoires. Les agents chimiques, comme le chlorure de zéphiran, maintiennent la stérilité des instruments déjà stérilisés. On se sert de la stérilisation à l'huile Silicone, 150°C pour 20 minutes, pour les instruments tranchants et rotatifs. On emploie les germicides et les détergents G 11 pour les mains de l'opérateur.

Contrôle bactériologique:

L'endodontie a introduit la technique bactériologique en dentisterie: en effet, on prend une culture du canal d'une dent et la stérilité doit être parfaitement contrôlée avant son obturation. La radiographie nous donne l'image d'un changement périapical et non toujours d'une infection. La nouvelle technique de la prise de culture est la seule méthode scientifique sûre de se rendre compte de l'infection ou de la stérilité du canal radiculaire d'une dent. Dans la technique de la prise de culture, on se sert d'une pointe de papier stérile qu'on place dans le canal d'une façon aseptique et on laisse ensuite tomber cette pointe dans un bouillon de culture stérile. Le milieu de culture doit être riche en éléments nutritifs permettant la prolifération des bactéries aérobiques et anaérobiques, comme le bouillon au thioglycolate. Le tube est mis à l'incubateur pour 48 heures. S'il y a croissance de bactéries, il y a infection du canal. Le canal est obturé qu'après deux cultures négatives contrôlées. Dans les cas résistants, un examen microscopique et un gram nous permettent d'identifier le genre de bactéries et de choisir la médication la plus appropriée.

Chimio et polyantibiothérapie:

Le médicament le plus utilisé pour son action antiseptique prolongée dans le

canal est le paramonochlorophénol camphré. On emploie l'hypochlorite de sodium pour dissoudre les contenants organiques du canal. Pendant les dernières années, nous avons trouvé qu'aucun antibiotique seul ne peut détruire la flore trouvée dans les canaux. Une combinaison d'antibiotiques effectifs contre les gram-positifs et les gram-négatifs (incluant les souches résistantes), de même que contre les levures, est nécessaire. Le traitement polyanthibiotique des canaux infectés avec une suspension de pénicilline, bacitracin, streptomycine et caprylate de sodium (PBSC) s'est avéré très effectif, et des cultures négatives ont été obtenues après une moyenne de 2 à 3 traitements.

Foyers d'infection:

On peut diviser les portes d'entrées dentaires en foyers spontanés: 1. Les foyers intradentaires: caries pénétrantes. 2. Les foyers apicaux: granulomes, kystes, ostéites. 3. Les ostéites post-opératoires avec des aires résiduelles. Nous avons également des foyers thérapeutiques: 1. L'alésage insuffisant des canaux avec obturation radiculaire non hermétique et l'infection par les canalicules dentinaires. 2. Les antiseptiques violents, qui amènent une nécrose périapicale.

Cette théorie de la "focal infection", déjà entrevue par William Hunter, en 1901, mais surtout défendue par Billings et Rosenow en 1916, admet que les microbes ou leurs toxines (exo ou endotoxines), provenant d'un foyer ordinairement localisé dans des tissus en communication avec une muqueuse ou avec la peau, peuvent en suivant la voie artérielle donner lieu à des foyers d'infection secondaire. Le foyer primaire se trouve au niveau des dents, des amygdales, de la gorge, des sinus, de l'appareil génito-urinaire, des voies respiratoires ou du tractus gastro-intestinal avec annexes, l'appendice ou le cholédoque.

Depuis trois décades, les dents sans pulpe ont été intimement liées aux foyers d'infection dans l'esprit des médecins et dentistes. Appleton dit que: "Plusieurs médecins ont accepté le concept du foyer d'infection, particulièrement, lorsque les

dents sans pulpe étaient concernées comme un fait et un grand nombre de dents ont été sacrifiées inutilement." Rien de bon ne peut venir de l'extraction d'une dent non infectée et, conséquemment, le premier point à régler est: "Est-ce que l'infection existe ou non?" En second lieu, l'infection peut être enlevée sans l'extraction, et, troisièmement, les infections buccales, nonobstant leur relation constitutionnelle possible, ne doivent pas être regardées avec plus d'importance qu'aucune autre infection dans l'organisme. Une dent sans pulpe n'est pas une dent morte. Elle a une relation vitale et définie avec les tissus environnants. Si la dent sans pulpe était une dent morte, elle devrait être expulsée parce que l'organisme ne tolère pas les tissus morts. La membrane périodontaire couvrant la surface de la racine est une partie de la dent et la vitalité demeure intacte.

Rosenberg de la clinique Mayo prétend: "Aujourd'hui, on doute que l'arthrite rhumatismale soit une maladie d'origine bactérienne". Ziskin a fait des études radiographiques de 1500 sujets pour déterminer s'il y a corrélation entre des radiographies positives des dents sans pulpe et les maladies organiques. Il n'a trouvé aucune relation apparente. Les histologistes qui ont étudié des sections de dents sans pulpe, presque sans exception, s'accordent sur trois points: 1. La régénération de l'os apical s'effectue après un traitement de canal fait de façon satisfaisante. 2. Les dents sans pulpe ne montrent généralement pas de signes histologiques. 3. Elles peuvent être retenues en toute sécurité dans la bouche. François et Douniau ont étudié en détail la relation entre les infections dentaires et les uvéites ou lésions oculaires. Ils concluent qu'une étiologie dentaire dans ces cas est tout à fait exceptionnelle; ils ne relatent qu'un seul cas sur 521 malades.

Conclusions:

1. L'endodontie s'occupe des traitements de la pulpe et des lésions périapicales consécutives à l'infection pulpaire.
2. La dentisterie préventive n'est pas

encore un fait accompli, et l'exposition de la pulpe se produira sous une lésion de carie.

3. Le but de l'endodontie est de retenir une dent non seulement avec confort, mais aussi avec sécurité pour le patient.

4. La rétention d'une dent, dont la pulpe est atteinte, repose sur certaines conditions locales et constitutionnelles.

5. Les moyens de stérilisation employés à la salle d'opération sont de rigueur en endodontie.

6. La prise de culture, mais non la radiographie, est la seule méthode scientifique sûre de se rendre compte de la stérilité du canal.

7. Le traitement polyantibiotique combine l'action bactéricide synergique de plusieurs antibiotés.

8. Le métabolisme et la vitalité de la dent sont maintenus par la présence de la membrane périépidurale.

9. Les dents sans pulpe, sans évidence histologique d'infection, ne constituent aucun foyer spontané ou thérapeutique d'infection.

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UNIVERSITE DE MONTREAL FACULTE DE CHIRURGIE DENTAIRE

COURS DU SOIR POUR LES PRATICIENS

Une série de cours postsecondaires est organisée pour les dentistes de Montréal et des environs en Chirurgie, Endodontie, Périodontie et Prothèse complète.

Ces leçons auront lieu le soir, de 8 heures à 10 heures, les mardis et jeudis. Elles consisteront en démonstrations cliniques sur des patients et en séminaires pratiques.

Ces cours auront lieu aux dates suivantes:

- Chirurgie** — 8 leçons — les 5, 7, 12, 14, 19, 21, 26 et 28 février
Endodontie — 6 leçons — les 5, 7, 12, 14, 19 et 21 février
Périodontie — 8 leçons — les 5, 7, 12, 14, 19, 21, 26 et 28 février
Prothèse — 10 leçons — les 5, 7, 12, 14, 19, 21, 26 et 28 février
 les 4 et 6 mars.

Pour tout renseignement, s'adresser au Doyen, Faculté de Chirurgie Dentaire, Université de Montréal, 2900 Boulevard Mont-Royal, Montréal 26.

NOUVELLES DE L'ASSOCIATION

La vente des bonbons et des breuvages carbonatés bannie dans les écoles des Etats-Unis

Le 2 août, le Congrès national des Parents et des Instituteurs des Etats-Unis demandait d'abolir la vente des bonbons et des liqueurs douces dans les écoles du pays. Les quartiers-généraux de cet organisme, à Chicago, prétendaient que ces sucreries sabotent une alimentation rationnelle et nuisent aux conseils donnés pour que les enfants acquièrent l'habitude de se bien nourrir.

Le Conseil de Diète et Nutrition de l'Association Médicale Américaine a aussi demandé la disparition des distributeurs automatiques de liqueurs carbonatées dans les édifices publics.

Ces requêtes concordent avec la résolution adoptée par le Conseil d'Hygiène dentaire de l'Association Dentaire Américaine à sa réunion de l'automne dernier, demandant la discontinuation de la vente des bonbons, des liqueurs douces et d'autres sucreries dans les écoles.

Mise sur pied d'une filmothèque dentaire professionnelle

La bibliothèque nationale de films médicaux et biologiques vient d'étendre ses activités aux films dentaires. La bibliothèque possède maintenant douze films d'intérêt spécial pour la profession dentaire et se propose de faire d'autres acquisitions prochainement.

Un catalogue complet vient d'être publié et peut être obtenu aux succursales de l'Office National du Film ou aux bibliothèques de chacun des hôpitaux des vétérans. Des copies supplémentaires peuvent être obtenues de la Section de Distribution, Office National du Film, 71 rue Bank, Ottawa.

Le catalogue indique les mesures à prendre pour emprunter ces films et c'est le désir de l'Office National du Film que ces pelliculés soient utilisées par des groupements professionnels d'un bout à l'autre du pays.

L'Office National du Film souhaite de plus recevoir des suggestions au sujet de films intéressants qu'il pourrait se procurer.

Réunion de Vancouver du 15 au 18 juin 1952

L'organisation de la réunion à Vancouver bat son plein. Les dates ont été choisies: 15, 16, 17 et 18 juin 1952. Le Bureau des Gouverneurs se réunira le mercredi, 11 juin, à 2.00 hrs p.m.

Un questionnaire a été expédié à tous les membres de l'Association qui résident à l'est du Manitoba, leur énumérant les facilités de transport par chemin de fer. Ces formules doivent étre retournées le plus tôt possible pour que les arrangements puissent être pris avec les compagnies ferroviaires.

Les réservations d'hôtel se font en s'adressant directement au Dr C. M. Whitworth, le secrétaire du Comité du Congrès, 218 Medical-Dental Bldg., Vancouver, B.C. Les chambres seront retenues par ordre de demande, accompagnées d'un chèque de \$15.00, payable au pair à Vancouver.

Tous ceux qui assisteront à la réunion du Bureau des Gouverneurs doivent procéder de la manière indiquée plus haut.

Transport par avion: Ceux qui désirent s'y rendre par avion le mentionneront sur la formule qui a trait au transport. Des arrangements seront alors pris par le Comité du Congrès avec Air-Canada. Les taux seront moindres, si les réservations sont faites pour des groupes.

Recherche dentaire

Comité associé des Recherches dentaires du Conseil National des Recherches

Les dentistes canadiens seront heureux de connaître les activités de ce Comité sur différentes questions:

1. Le Comité associé des Recherches dentaires a été institué il y a environ 6 ans. Le Dr R. G. Ellis, doyen de la faculté dentaire de l'Université de Toronto, en est le président.
2. La fonction principale de ce Comité est d'encourager et de supporter les recherches dentaires, au Canada, en fournissant des subsides financiers aux chercheurs engagés dans des projets bien définis.
3. Les règlements actuels du Comité fa-

vorisent plutôt les recherches de laboratoire que les études cliniques.

4. Au cours des six dernières années, environ \$200,000 ont été attribués pour un grand nombre de projets de recherches, dont plusieurs ont été menés dans les facultés dentaires du pays. Cette année, environ \$35,000 ont déjà été dépensés dans ce but.
5. Récemment, le Comité a recommandé au Conseil National des Recherches d'instituer, pour cette année, des bourses de voyage d'un montant de \$250.00 chacune, pour aider ceux qui ont entrepris des projets sous l'égide du Conseil, ou leur assistant, à se rendre à la réunion annuelle de l'Association Internationale des Recherches dentaires, quand ce voyage est jugé profitable à la poursuite du travail commencé.
6. Le Conseil National des Recherches, par le truchement du Comité associé des recherches dentaires, contribue beaucoup à la poursuite des recherches dentaires et à l'avenir de la dentisterie canadienne. Le Conseil fournit l'assistance pécuniaire pour mener à bien des projets de recherches, à condition qu'il se présente des chercheurs qualifiés pour ce travail; *il ne forme pas de personnel pour la recherche.*
7. Il est évident que si la dentisterie canadienne veut continuer à profiter des octrois généreux du Conseil National des Recherches et d'autres organismes, il faut veiller à former en plus grand nombre des chercheurs capables d'entreprendre et de mener à bien des projets de recherches dentaires.

Assemblées projetées

Comité Exécutif: Le Comité Exécutif se réunira à partir de lundi, le 11 février, aux quartiers-généraux de l'A.D.C.

Conseil d'Enseignement dentaire: Le Conseil se réunira jeudi et vendredi, les 7 et 8 février, aux quartiers-généraux de l'A.D.C.

Congrès de la Fédération Dentaire Internationale, à Londres, du 19 au 26 juillet 1952

Le roi sera le patron d'honneur du Congrès. L'organisation de ce onzième

congrès dentaire international, qui aura lieu en juillet, à Londres, progresse rapidement. On prévoit que des représentants d'au moins trente pays seront présents.

Programme

Scientifique

- a) Vingt rapports par des dentistes éminents de toutes les parties du monde (voir le supplément du 16 octobre 1951 du British Dental Journal, pour la liste complète), qui seront discutés par des commentateurs.
- b) Symposiums sur:
 - 1) l'orthodontie
 - 2) prothèse complète
 - 3) contrôle et prévention de la carie dentaire
- c) Cliniques — Choies parmi une centaine soumises par des dentistes de toutes les parties du monde.
- d) Séances où les chercheurs discuteront de leurs problèmes communs.
- e) Des exhibits scientifiques d'intérêt spécial.
- f) Télévision et programme continu de films.
- g) Exhibit d'hygiène dentaire.
- h) Exhibits commerciaux.

Événement sociaux

- a) Grand bal au Albert Hall.
- b) Banquet du Congrès au Grosvenor House.
- c) Nombreuses réceptions officielles.
- d) Visites organisées à Oxford, Cambridge et endroits historiques dans Londres et aux alentours.

Des formules d'inscription pour le Congrès peuvent être obtenues du secrétaire, à 234 St. George St., Toronto. Un pamphlet intéressant, intitulé "Congress Information" est aussi à la disposition de ceux qui seraient intéressés.

La Cie. Thos. Cook et Sons, 75 King St. W., Toronto 1, a été chargée de l'organisation du transport des membres de l'A.D.C. Comme le Congrès est fixé dans la période achalandée du tourisme, on devrait s'occuper tout de suite de réserver ses places pour les hôtels, sur les bateaux ou les avions.

Il faut s'adresser directement à la Cie Cook and Sons.

Programme dentaire de l'Organisation Mondiale de la santé: quatrième réunion de l'Organisation.

La quatrième réunion de cet organisme mondial a adopté les résolutions suivantes touchant l'hygiène dentaire:

"A la lumière du rapport du directeur-général d'hygiène dentaire préparé à la

demande de la troisième réunion et en réalisant que son mandat comporte la mise sur pied d'un programme de santé dentaire pour une période définie, le Comité Exécutif et le directeur-général sont priés:

1. d'inclure un tel programme au nombre des activités à venir de l'organisation, en tenant compte des recommandations du Comité du Programme;
2. de réaliser aussitôt que possible les projets de santé dentaire en collaboration avec les services de propagande pratique, quand la situation financière le permettra;
3. de promouvoir l'entraînement d'un personnel pour répandre l'hygiène dentaire en conformité avec le système de bourses d'étude, de l'Organisation Mondiale de la Santé.

Pour faire suite à cette résolution, le Comité Exécutif de l'Organisation Mondiale de la Santé a approuvé une motion demandant au directeur-général:

1. d'encourager la formation d'un personnel dentaire, pour répandre des notions de dentisterie préventive, en octroyant des bourses d'études sous l'égide de l'O.M.S.
2. de prier la Fédération Dentaire Internationale de lui fournir des renseignements sur la dentisterie préventive.
3. d'inclure dans le programme et le budget pour 1953, des provisions pour l'hygiène dentaire.

Mise au point du Comité des Recherches sur les rapports qui existent entre le sucre et les caries dentaires

(préparée à la demande du Comité par le Dr Gordon Nikiforuk, de la faculté dentaire de l'Université de Toronto.)

Le public et des groupements professionnels s'intéressent à cette question; plusieurs opinions ont été exprimées à ce sujet et souvent elles sont obscures et ne reposent sur aucune donnée sûre. Cette mise au point est basée sur une revue et sur une appréciation des expériences faites sur les relations qui existent

entre la carie dentaire et la consommation de sucre. Des rapports récents, venant de Notre Dame (12), où des expériences sont conduites sur des animaux "stérilisés," montrent que la carie dentaire ne peut se développer en l'absence de bactéries. Kite, Shaw et Sognaes (9) prétendent qu'on ne peut noter de caries chez des rats susceptibles d'en être atteints, quand on les nourrit d'aliments propres à développer les caries, directement par l'estomac. Des rats de la même espèce vivant dans le même environnement ont contracté des caries, quand on les laissait manger à volonté les mêmes aliments, durant les mêmes périodes de temps. Par conséquent, la présence de bactéries dans la bouche et une nourriture favorable à la prolifération de bactéries représentent deux conditions "sine qua non," sans lesquelles la carie ne peut apparaître.

A) Quels renseignements sûrs avons-nous au sujet de la consommation de sucre et l'incidence des caries dentaires?

1. La fréquence des caries chez les peuplades sauvages est moins grave, quoique variable, que chez les peuples civilisés. L'addition d'aliments contenant une teneur considérable en sucres à la diète de ces primitifs amène une recrudescence des caries dentaires. Ces modifications dans l'état des dents de ces gens ne semble pas provenir de leur diète prise dans son ensemble. (1,13,14,15).

2. Il a été démontré que la diminution des excès de sucres dans l'alimentation de certains individus, qui souffraient de caries excessives, a amené une amélioration marquée dans l'incidence des caries. (2,6)

3. Il n'a jamais été possible de produire des caries-types sur des animaux de laboratoire, sans ajouter de sucre à leur alimentation. (20)

4. Durant la dernière guerre, il y eut une relation notable entre la diminution des caries dentaires et la rareté de sucre, dans certains pays. (10,16,19)

b) Comment le sucre affecte-t-il les dents?

Toutes les recherches semblent prouver que le sucre agit comme un substrat

pour les enzymes bactériennes. Les bactéries trouvent leur énergie dans la décomposition du sucre et secrètent un sous-produit métabolique sous la forme d'acides organiques. Cet acide peut causer une déminéralisation de la partie inorganique de la dent (3). Par conséquent, les faits qui rendent les acides en partie responsables du processus de la carie incriminent aussi, indirectement, les sucres. Cette évidence peut-être puisée à plusieurs sources.

1. Il y a des affinités histologiques entre une région dentaire cariée et une autre décalcifiée par un acide (7).

2. La couche de dentine épaisse notée dans une lésion de carie est une dentine privée de ses sels minéraux (7). Il est difficile de concevoir un mécanisme de décalcification dans la cavité buccale, qui ne s'apparenterait pas à une déminéralisation acide.

3. Quelques minutes après l'ingestion de sucres, le pH de la surface d'une lésion de carie dentaire baisse de 7.0 à 5.0. Ce pH est assez bas pour décalcifier une dent (4).

4. Des expériences bactériologiques faites sur des personnes susceptibles à la carie montrent qu'elles possèdent une flore bactérienne douée de propriétés favorables à une production considérable d'acides. (5,7).

Il faut dire que toute la teneur d'une alimentation en hydrates de carbone ne peut être tenue responsable des caries dans les dents. La variété d'hydrates de carbone (seuls les sucres, le glucose et le fructose, parmi les hydro-carbonés les plus communs, fermentent rapidement sous l'action de la flore buccale), la concentration du sucre et la fréquence des ingestions sont des facteurs importants (8,11,17).

Il paraît évident qu'il y a une relation étroite entre la consommation de sucre et la fréquence des caries. Cependant cela ne veut pas dire que tous les grands mangeurs de sucre souffriront de carie; comme il n'est pas juste de dire que tous ceux qui viennent en contact avec le

pollen spécifique contracteront la fièvre des foins. Le sucre joue un rôle important dans le développement des caries; il ne constitue pas l'unique facteur. Le mécanisme de la carie est déclenché par plusieurs causes, dont quelques-unes sont encore inconnues. Une application plus complète de tous les faits observés ne sera possible qu'au moment où, grâce à la recherche, nous serons en mesure de juger à son mérite le rôle de chacun de ces facteurs sur la production des caries: ambiance de la dent, structure des tissus dentaires, alimentation, évolution embryologique de la dent, conditions organiques. Il faudra aussi étudier tous ces facteurs chez l'individu non-susceptible à la carie.

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Revue de la Presse Etrangère

H.-T. THOMASON. — L'anesthésie générale en dentisterie infantile

La dentisterie infantile diffère de la dentisterie de l'adulte, sous beaucoup de rapports. Interviennent les facteurs suivants: âge, stabilité émotionnelle, mode de comportement général, inaccessibilité au raisonnement, troubles psychiques dus à la peur ou à des expériences dentaires antérieures désagréables, état de santé général.

Chaque enfant constitue un problème individuel. L'importance du traitement à appliquer est évidemment en rapport avec l'état pathologique. Le succès ne pourra être obtenu que si l'enfant a confiance dans son dentiste. Celui-ci ne peut se gagner que par la suppression de la douleur au cours des interventions.

Le choix de l'anesthésie est le problème le plus important, les principales considérations sous ce rapport étant la facilité d'administration et la sécurité. Les sédatifs, particulièrement les barbiturates, sont souvent employés, seuls ou en combinaison avec l'anesthésie, locale ou générale.

L'anesthésie locale peut être employée chez la plupart des enfants, seule ou en combinaison avec les barbiturates, compte tenu de leur âge et de l'importance du traitement dentaire à appliquer. Tous les praticiens sont au courant des indications de cette technique.

Pour ce qui est de l'anesthésie générale, les spécialistes de la dentisterie infantile ne sont pas toujours d'accord sur ses indications. Néanmoins, des indications spéciales peuvent être établies dans les cas suivants:

L'anesthésie générale doit être employée chez l'enfant très jeune, qui n'est pas encore accessible au raisonnement.

Le paralysie ou les troubles nerveux ou psychiques, constituent une contre-indication à toute anesthésie autre que la générale.

Les extractions et restaurations multiples chez des sujets ayant subi des blessures des dents et des tissus de support, réclament l'anesthésie générale.

Dans les cas d'infection dentaire sévère, l'anesthésie générale offre une plus grande sécurité que l'anesthésie locale.

Enfin, l'anesthésie générale offre un excellent moyen pour venir à bout de l'enfant timoré, extrêmement nerveux.

Les avantages de l'anesthésie générale, tant pour le patient que pour l'opérateur sont bien connus. L'opérateur est libre de prêter toute son attention à l'intervention, sans avoir à s'imposer une hâte inutile, il n'est pas gêné par le patient et peut en une séance réaliser un travail bien plus important que sous anesthésie locale. Mais il y a aussi des inconvénients: dangers de l'administration, obstruc-

tion des conduits trachéo-bronchiques, aspiration de corps étrangers, nausées et vomissements post-opératoires.

L'anesthésie générale se donne avec une plus grande sécurité lorsque le patient est hospitalisé. Néanmoins pour des interventions de moindre importance elle peut être employée avec succès dans le cabinet dentaire.

Les agents employés sont nombreux, mais la plus grande sécurité est offerte par le protoxyde d'azote-éther-oxygène. L'administration de cette combinaison peut être facilitée par l'adjonction de barbiturates avec ou sans morphine ou scopolamine à dose adéquate.

Pour des interventions dentaires de courte durée, on emploie la méthode d'administration semi-ouverte. Dans le cas contraire, c'est la méthode fermée qui est la méthode de choix, avec emploi du masque facial et du tube endotrachéal.

L'intubation nasale présente les avantages suivants:

1° toute l'instrumentation anesthésique est éloignée du champ opératoire;

2° les conduits trachéo-bronchiques ne sont pas obstrués et la respiration n'est nullement gênée au cours de l'intervention;

3° le danger d'aspiration pulmonaire qui complique la méthode ouverte est supprimé ou presque;

4° l'administration de l'agent anesthésique est uniforme;

5° pas d'anoxie ou presque, selon la quantité d'oxygène donnée;

6° on peut augmenter la dose d'oxygène et réduire celle de l'agent anesthésique;

7° la perte de chaleur et de liquide de l'organisme est moindre qu'avec la méthode ouverte;

8° la plupart de ces avantages ont pour effet de rendre la période post-opératoire plus agréable.

Les inconvénients sont:

1° possibilité d'hémorragie naso-pharyngo-bronchique par traumatisme, si l'intubation est faite sans précautions suffisantes;

2° possibilité de traumatisme des dents par le laryngoscope manié de façon incorrecte;

3° possibilité de lésion des cordes vocales par traumatisme dû à un tube endotrachéal trop volumineux.

On peut admettre que les avantages de la méthode compensent ses inconvénients. (*J.A.D.A.*, janvier 1951, p. 26).

L'Information Dentaire (fév. 1951)



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Le problème des fissures palatines

Parmi les nombreux services que le dentiste est appelé à rendre à la population, nul n'a une portée sociale aussi considérable que celui de remplacer les lacunes anatomiques chez les individus présentant des fissures au palais, accompagnées ou non de becs-de-lièvres.

On compte un cas de fissure labiale ou palatine par 750 naissances et quarante pour cent de ces infirmités congénitales sont héréditaires. Il y a environ 100,000 cas de ce genre au Canada, et cet ensemble représente un problème médical et ré-éducatif d'envergure. Les patients atteints de ces difformités exigent des traitements qui intéressent le chirurgien esthétique, le dentiste, l'orthodontiste, le laryngologiste, le psychiatre et les spécialistes en phonétique et en science auditive, sans parler des assistants sociaux, qui en font le dépistage et aident à leur réhabilitation. Le rôle du dentiste dans le traitement des divisions palatines est immense. La plupart de ces patients souffrent de malocclusions de toutes sortes (dents incluses, maladies gingivales), produites par un arrêt ou un retard dans la croissance des maxillaires ou par des interventions chirurgicales pratiquées à un âge trop jeune.

La reconstitution des parties manquantes du palais osseux et du palais muqueux oppose deux écoles: l'une préconise la chirurgie pour combler ces lacunes; l'autre préfère les appareils artificiels. Ces deux opinions ont leurs défenseurs et leurs adversaires: on nous rapporte que les autorités, dans ce domaine, se rangent plutôt dans le camp des conservateurs, c'est-à-dire, de ceux qui préconisent les appareils de prothèse. Le Dr Robert H. Ivy, qui est professeur de chirurgie plastique à l'University of Pennsylvania et un chirurgien buccal universellement connu, recommande les prothèses pour de meilleurs résultats phonétiques.

Quoiqu'il en soit, la fonction la plus importante du dentiste consiste à

remplacer par un obturateur les parties absentes du palais dur et de la musculature du voile du palais. Ces appareils suppléent aux muscles du palais mou et de la luette pour empêcher l'air qui vient des poumons de s'engouffrer dans le nez. Inconsciemment, dans son langage, l'individu normal dirige le volume d'air dans sa cavité buccale, en bloquant les ouvertures nasales; seules les consonnances nasales exigent l'insinuation du souffle dans les fosses nasales. C'est précisément ce contrôle musculaire inconscient que l'infirme du palais ne possède pas, parce que ses organes sont absents ou incomplets; et c'est ce langage incompréhensible dont souffre ce malade qui en fait un être timide, frustré, incompris. Ce langage nasal—doublé parfois d'une bouche extérieure difforme—confère à la victime un complexe d'infériorité qui ébranle son psychisme et en fait un être anormal, malheureux.

La tâche des thérapeutes est non seulement de corriger les défauts physiques, mais aussi, en donnant à l'individu un langage normal par des exercices appropriés de phonétique, de lui trouver sa place normale dans la société. Cette réhabilitation suppose un travail d'équipe; aussi ce service ne peut se prodiguer que dans un centre spécialisé dans ce but. Aux Etats-Unis, il y a de ces centres qui s'occupent de ces infortunés et qui leur donnent une personnalité normale. Le plus connu est le Lancaster Cleft-Palate Clinic, affilié à la faculté dentaire de l'University of Pennsylvania, sous la direction du docteur Herbert Kurtz Cooper.

Les Canadiens de langue française ne possèdent pas de cliniques de ce genre. La faculté de chirurgie dentaire de l'Université de Montréal renferme une section de prothèse maxillo-faciale, où on confectionne des obturateurs pour ces infirmes de la bouche, mais elle ne dispose pas de facilités propres à leur rééducation. A d'autres endroits, comme à l'Hôpital Ste-Justine de Montréal, on a une école de phonétique, où les défectuosités de langage sont corrigées. En un mot, ici et là, on accomplit une partie de la besogne, et on laisse les patients en plan, sans leur donner un service complet. Il faudra un jour ou l'autre, mettre sur pied un centre de réhabilitation des mutilés du palais; il s'agit d'un problème plus social que médical. En 1949, le gouvernement fédéral a voté une loi mettant à la disposition des enfants infirmes indigents, une somme considérable pour faciliter leurs traitements; les lèvres fissurées et les divisions palatines sont classées comme des infirmités tombant sous la portée de cette loi. La constitution canadienne demande que tous les octrois de santé soient distribués par les provinces. La province du Québec, à l'été 1950, n'avait encore rien fait dans ce domaine, mais nous trouverions peut-être là les ressources pécuniaires nécessaires à l'organisation de ce centre de réhabilitation.

GERARD DE MONTIGNY





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STREET IN INDIAN VILLAGE

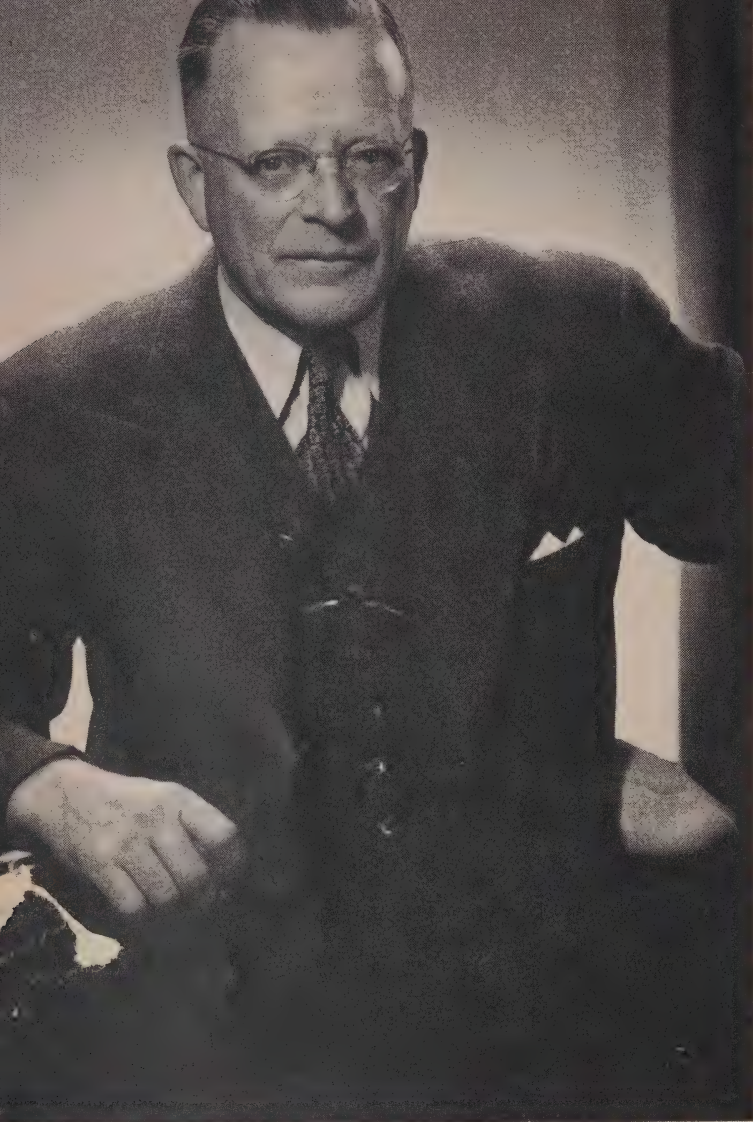
Bella Coola, British Columbia

RULES FOR A CONTENTED LIFE

Health enough to make work a pleasure.
Wealth enough to support my needs.
Patience enough to toil 'till some good is accomplished.
Love enough to move me to be helpful to others.
Grace enough to confess my sins and forsake them.
Charity enough to see some good in my neighbour.
Faith enough to make real the things of God.
Hope enough to remove all anxious fears for the future.

—GOETHE

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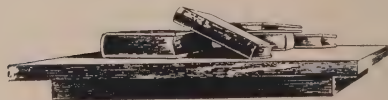
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The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, FEBRUARY, 1952

No. 2

Prevention and Interception of Malocclusion*

The George W. Grieve Memorial Lecture

by GERALD FRANKLIN, D.D.S., F.I.C.D., Montreal, Quebec

PREVENTION of disease is the aim of all health services and dentistry is increasingly concerned with the prevention of dental disease. As our knowledge increases more attention is given to dissemination of information and to application of preventive measures in order to reduce the high incidence of dental caries and its sequelae. Prevention is rapidly becoming a watchword in dentistry.

MALOCCLUSION

Dentists are constantly confronted with problems which are aggravated by malocclusion of the teeth. Increased susceptibility to caries, traumatic occlusion, periodontal disturbances, impairment of function, difficulty in replacing lost tissue, facial inharmony are some of the ill-effects accompanying malposition of the teeth. Corrective measures are indicated but the correction of a fully developed and complex malocclusion is a long and exacting process which limits the number of patients that can be given adequate attention. The need for prevention of malocclusion is evident. There is also an urgent need for intercepting malocclusion in its incipient stages to reduce its severity or perhaps the need for further corrective treatment. By these two means some relief can be brought to a larger section of the population.

For help in the prevention of malocclusion dentistry has naturally turned

to its own branch—orthodontics. Whatever knowledge has been gained into the factors that contribute to normal and abnormal development of the dentition is freely made available to dentistry for orthodontics is deeply concerned with the prevention of malocclusion and reduction of its incidence. But prevention of malocclusion is not exclusively the responsibility of the orthodontist. It is much more the responsibility of the dentist. Usually the orthodontist does not see the patient until the malocclusion is definitely established or at least to some extent. The dentist is given and should be given the opportunity of seeing the patient at a much earlier stage. He is able to watch the development of the dentition and to note any maldevelopment in its incipient stage. By what he does or does not do he can contribute to a normal occlusion or to a malocclusion. He can call in the help of an orthodontist if he so desires; nevertheless the responsibility of preventing and intercepting malocclusion devolves on him.

Malocclusion of the teeth is not a disease and does not enter the realm of pathology. Its prevention cannot be approached by a simple method such as vaccination or even elimination of bacteria. It is more in the nature of a disturbance in arrangement and function of parts and is mainly a problem in growth or rather disturbed growth.

*Presented before the Canadian Dental Association at Ottawa, September 24, 1951.

Growth has an inherent potential. We can encourage optimum growth by proper care or we can fail to obtain it by neglect or by not removing interferences. We may be able to guide growth to a limited extent but we cannot control it. The fact that adverse environmental influences may affect the original growth pattern further complicates the problem. We may be able to control some of the adverse factors but we still have to contend with the original growth pattern. More than one factor may be contributing to the malocclusion and it is often very difficult to determine just what is the culprit.

HEREDITY

Another factor enters into the picture of normal development of the face and jaws, occlusion and malocclusion. That factor is heredity. No matter how much one may argue for or against the influence of heredity as opposed to environment, heredity cannot be ignored. The general pattern of growth and the inherent growth potential are inherited. We cannot control heredity without a change in our present method of selecting mates. Perhaps if we could so educate our children that they would select their mates with a vision of their possible offspring and an eye on their dental occlusion we might over a period of centuries develop a race in which malocclusion would be a minor problem. This is doubtful since in order to perpetuate the species nature has set up a very powerful emotion and our culture is constantly stressing superficial beauty, be it artificial or natural. Besides it would mean condemning a large section of the population either to celibacy or to childlessness. It might also be misleading for a normal occlusion that is the result of orthodontic treatment is not inheritable.

So long as we have heredity and growth to contend with the prevention of malocclusion is not a simple problem. We cannot immunize the population against malocclusion. Hence we should not talk glibly about prevention lest such talk be misleading to the public

and discouraging to ourselves. However, the situation is not hopeless. Some aetiologic factors do come under our control and a high percentage of malocclusion can be avoided or intercepted at an early stage. Interferences with normal development may often be removed or overcome. This is our responsibility as dentists. It is the purpose of this lecture to discuss what we can do to reduce the incidence of malocclusion.

Before proceeding to purely dental measures, mention should be made of two aetiologic factors which come to our attention but are somewhat beyond our field. Diet and nutrition are important to optimum health and growth while endocrine function and balance govern growth both normal and abnormal. Where a deficiency or disturbance is suspected appropriate help should be sought.

DECIDUOUS TEETH

Our responsibility usually begins with the primary dentition. More attention must be given to the deciduous teeth. They have a definite span of life. Their function is to furnish a mechanism for mastication in harmony with a child's jaws, to maintain occlusal height, interalveolar space and space for their successors and to add the stimulus of occlusal function to the inherent growth force. Normal development of the permanent dentition is greatly dependent on the care and retention of deciduous teeth throughout their allotted life. Neglect invariably results in a disturbed occlusion of the permanent teeth. Much malocclusion may be avoided by maintaining the deciduous teeth in good health and with durable restorations that reproduce the anatomy accurately and maintain the mesiodistal width of the teeth.

After the eruption of all the deciduous teeth the overbite is deep and the posterior surfaces of the second deciduous molars lie in the same vertical plane. The deep overbite fixes the mandibular position in centric occlusion and the first permanent molars assume

a cusp-to-cusp occlusion on eruption. If function is vigorous and the diet suitably abrasive, attrition of the anterior teeth decreases the locking effect of the overbite and permits the mandible to move slightly forward in its growth. The growth of the premaxillary area with the spacing of the anterior teeth further assists in releasing the mandible forward. If the overbite is not reduced by these means the mandible continues to be locked and the permanent molars are unable to progress toward their normal occlusion. On the exfoliation of the incisors the interference is frequently confined to the deciduous cuspids. Judicious grinding of the cuspids at this stage will often release the mandible and prevent or reduce an impending malocclusion.

The deciduous molars are wider than the bicuspid. The difference not only permits a mesial movement of the molars with adjustment of their occlusion but also permits some distal adjustment of the permanent cuspid. The deciduous cuspids and molars maintain the anteroposterior integrity of the dental arch. If the anterior teeth are slightly crowded and the molars are in good occlusion, it is in some cases a good preventive measure to insert a lingual appliance in order to maintain the anteroposterior length. This will prevent shortening of the dental arch and will give the anterior teeth a chance to improve their alignment. It is particularly applicable in the mandible.

SPACE MAINTAINERS

The tendency for the deciduous and permanent molars to drift mesially is a positive one. If ignored when tooth tissue is lost it can cause serious malocclusion. If caries destroys the proximal tissue of a deciduous molar and reduces its mesiodistal width the permanent molar drifts mesially until contact is obtained thereby decreasing the space for the eruption of the bicuspid. It is advisable to remove proximal caries in its early stages before the wall breaks down and to restore the mesio-

distal width of the tooth with a durable material. If the tooth has to be removed, the teeth posterior to it will move into the space to a greater or lesser extent depending on the dental age of the patient, the tooth that is lost and the interdigitation of the remaining teeth. (Fig. 1.) While it is true that oc-



FIG. 1

Loss of space for permanent cuspid and bicuspid due to premature loss of deciduous teeth and mesial drift of posterior teeth.

asionally the space does not close and sometimes it even opens again after closing somewhat, it is also true that in the vast majority of cases the space does close and the succeeding bicuspid may be partially or completely blocked out of the line of occlusion. Hence it is necessary to prevent undesirable closure of the space. This can be achieved by the insertion of a space maintainer. This does not mean that a space maintainer must always be inserted for judgment must be exercised.

The extent of development of the permanent successor, the dental age of the patient and the cusp interdigitation of the teeth must be considered when deciding on the need for a space maintainer. Also, the mandibular posterior teeth drift mesially more rapidly than the maxillary teeth and if the occlusion is good the maxillary molar often rotates on its mesiolingual cusp instead of drifting mesially in a straight line. In some children the dental age is advanced and the bicuspid may erupt one to two years ahead of the average. A

roentgenogram is helpful. If it shows bone over the occlusal of the bicuspid and the tooth not well developed, a space maintainer is indicated for a first deciduous molar extracted before the age of eight and a second deciduous molar before ten. After eight and ten years respectively a space maintainer is not necessary if there is no bone over the occlusal and the bicuspid is well developed. In case of doubt and where there is good cusp interdigitation it is permissible to watch the occlusion over a period of several months to see whether the space is closing. This can be done with the aid of a cast or a good compound impression which can be checked for its fit at monthly intervals.

The premature loss of a mandibular deciduous cuspid involves more than the mesial movement of the posterior teeth. The integrity of the arch is broken and with it the resistance to the action of the mentalis and orbicularis muscles. The anterior segment may fail to maintain its forward position and the lateral incisor come close to or in contact with the first deciduous molar. (Fig. 2) The space is best main-

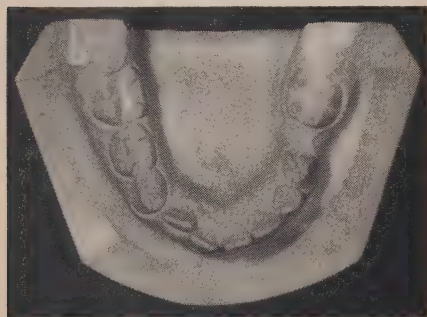


FIG. 2

Result of premature loss of deciduous cuspid. Incisors have drifted distally with flattening of arch and posterior teeth have drifted mesially. Lateral incisor is almost in contact with molar. On left side the premature loss of second deciduous molar has resulted in partial closure of space for second bicuspid.

tained by means of lingual appliance with an acrylic insert or short wire extension.

No space maintainer is as good as the tooth for the latter maintains height and function as well as space. In addition to holding the space, a maintainer should permit functional movement of teeth, should not interfere with vertical growth or opening of the space through normal growth and should not interfere with the normal eruption of the permanent tooth. (Fig. 3) It should be checked frequently and removed as soon as the permanent tooth shows signs of erupting in order not to interfere with normal occlusal adjustment.



FIG. 3

Two types of space maintainers. The one on the right side of the mouth must be checked more frequently to see that it does not interfere with or deflect the erupting bicuspid.

RESORPTION AND RETENTION

Failure in resorption of deciduous roots and retention of the teeth beyond their normal time for exfoliation is a common cause of malocclusion. Frequently, resorption is not entirely absent but proceeds on one side of the root or on one root only. The unresorbed root either prevents the eruption of the permanent tooth or deflects it from its normal path of eruption. The latter condition may often be observed clinically before eruption by a visible and palpable prominence of the mucosa. The area should be checked with roentgenograms and the offending deciduous tooth extracted with all of its root. If a portion of root is left it will continue to cause malposition of the permanent tooth.

Due to their development lingual to the deciduous teeth the permanent incisors have a tendency to erupt lingually and do so if the predecessor is not exfoliated in time. This is fairly common in the mandible, (Fig. 4). The in-



FIG. 4

Permanent lateral incisor has erupted lingual to the deciduous incisor.

terfering deciduous incisor should be extracted. The functional pressure of the tongue will direct the permanent incisor into position in the arch if there is sufficient space for it. Insufficient space at this age may mean inadequate growth. A neighbouring deciduous tooth should not be extracted in order to create space for the permanent tooth. This applies particularly to the deciduous cuspid for to remove it in favour of the permanent lateral may afford temporary improvement but actually aggravates the eventual malocclusion. (Fig. 5)

In the maxillary arch the tendency to lingual eruption and the prolonged retention of a deciduous incisor gives rise to cross-bite in which a maxillary incisor occludes lingual to the mandibular incisors. In its incipient stage and before the incisors have locked to any extent, the use of a shaped tongue blade as a lever by the patient to exert pressure on the malposed maxillary incisor from the lingual has proven effective in many cases. (Figs. 6 & 7) The pressure should be applied for as long periods as possible during the day and co-operation of the patient is essential.

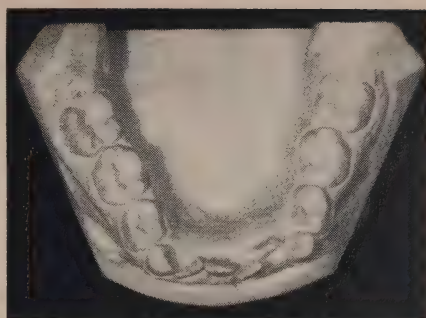


FIG. 5

Crowding of anterior teeth with left lateral incisor in lingual malposition. The deciduous cuspid should not be extracted.

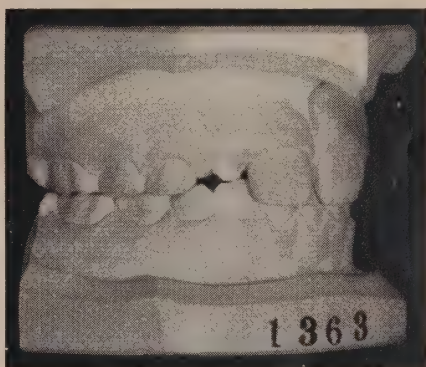


FIG. 6

Right lateral incisor erupting lingually. At this stage it may still be brought into normal occlusion by the use of a shaped tongue blade.



FIG. 7

Wooden tongue blade or depressor shaped to width of tooth and with no sharp edges.

There should be no sharp points on the blade and the patient should be instructed in its use with aid of a mirror.

If the incisors have locked in occlusion to any extent a more positive procedure must be adopted. The most satisfactory one is a band on the maxillary incisor with a piece of clasp plate soldered on the lingual. (Fig. 8) The angle of the plate and its length should

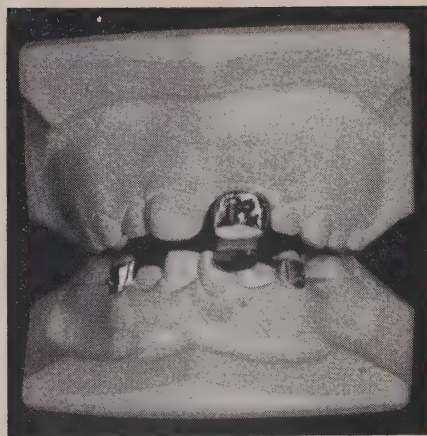


FIG. 8

Flat clasp plate metal soldered on lingual of band to act as inclined plane and move the tooth labially as the jaws are closed. A lingual wire soldered to bands on the deciduous cuspids may be used if necessary to give support to the mandibular incisors.

be such that on closure the mandibular teeth engage it on the lingual and continued closure directs the maxillary incisor labially. It acts as an inclined plane or guide plane. In width the plane should preferably contact two mandibular teeth in order to distribute the stress. If contact with only one incisor is possible it may be necessary to reinforce this tooth with a wire on the lingual extending from cuspid to cuspid. This method is most successful where there is sufficient room in the maxillary arch for the malposed tooth. A plane should not be used before there is sufficient root development on the maxillary incisor to withstand the strain. For a maxillary cuspid which erupts lingually, a lingual appliance with a finger spring to direct it labially is usually more effective.

Another type of cross-bite is that of the first permanent molars. The path of eruption of the maxillary molar is from buccal to lingual and that of the mandibular molar is from lingual to buccal until the maxillary lingual cusps engage the lingual inclined planes of the mandibular buccal cusps. If sufficient rotation does not occur the maxil-



FIG. 9

Cross-bite of first permanent molars.

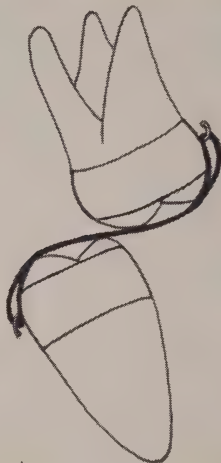


FIG. 10

Use of small rubber band from buccal hook on maxillary molar to lingual hook on mandibular molar to correct cross-bite.

lary molar continues its eruption completely buccal to the mandibular molar and a cross-bite results. (Fig. 9) In its incipient stage interceptive measures are simple. A small rubber band worn from a buccal hook on a band on the maxillary molar to a lingual hook on a band on the mandibular molar will usually correct the occlusion in a short time. (Fig. 10) Occasionally one can use a cast onlay on the maxillary molar with an inclined plane on its lingual surface to engage the buccal cusps of the mandibular molar. Care should be exercised with either method

not to disturb the occlusion of the other teeth.

Due to prolonged retention of the maxillary deciduous cuspid the permanent cuspid occasionally erupts high overlapping the lateral incisor on the labial. If there is sufficient space between the lateral and first bicuspid the malocclusion may be intercepted in one of two ways. A curved finger spring which extends from a band on the first molar and engages the mesial surface of the cuspid may be used to direct it distally. In a more severe malposition an elastic is used from a hook on a band or inlay on the cuspid to a buccal hook on the mandibular molar of the same side which is stabilized with a lingual appliance. As the force applied is an eruptive one, the elastic should exert a gentle stimulus only.

SUPERNUMERARY TEETH

Supernumerary teeth cannot be prevented but measures can be taken to lessen the disturbance to the occlusion. As a general rule it may be stated that it is advisable to remove the supernumerary tooth as early as possible if it can be done without danger to other teeth.

A supernumerary deciduous tooth should be removed and the progress of natural adjustment observed. (Fig. 11) At the same time the area should be examined radiographically for a possible supernumerary permanent tooth. (Fig. 12) Sometimes it is advisable to wait until the supernumerary erupts especially if it is so similar to the original tooth that it is difficult to determine which is the supernumerary. (Figs. 13 & 14) An unerupted supernumerary may interfere with the eruption of the normal permanent tooth or may cause a malposition. (Fig. 15) It should be removed as soon as that can be done safely.

A slight space or diastema between the maxillary central incisors on eruption is within the normal range. The centrals usually move into contact on eruption of the laterals and cuspids. Occasionally the frenum is abnormally

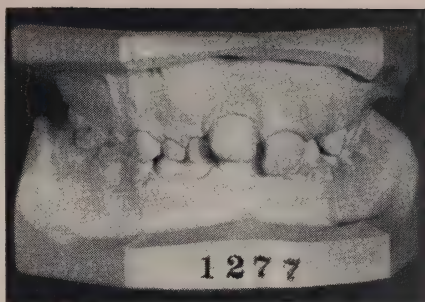


FIG. 11

Supernumerary deciduous incisor with malposition of permanent central incisor. The presence of a permanent supernumerary is shown in Fig. 12.



FIG. 12

Roentgenogram of case shown in Fig. 11 shows presence of a supernumerary permanent tooth which is so similar to the lateral incisor that it is difficult to distinguish between them.

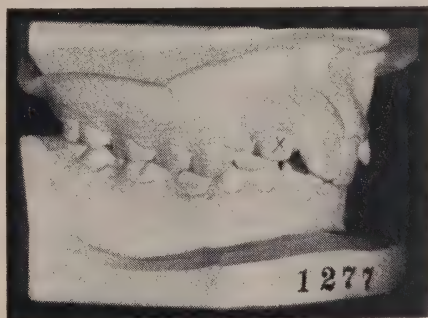


FIG. 13

The supernumerary and normal lateral were allowed to erupt. A decision was then reached that the tooth marked 'X' was the supernumerary and it was extracted.

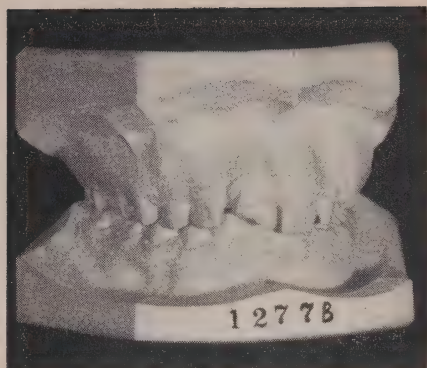


FIG. 14

Improvement in position of central incisor after extraction of supernumerary marked 'X' in Fig. 13.



FIG. 15

Roentgenogram of supernumerary interfering with eruption of central incisor.

large or fibrous in nature, and is fan shaped tapering downwards to the alveolar crest or its attachment remains at the incisive papilla. A pull on it will blanch the papilla lingually. In this state it not only contributes to a wide diastema but also interferes with the closure of the space. Surgical removal of the frenum at this stage will permit mesial movement of the centrals but surgery should be resorted to only if the frenum is definitely the cause of the diastema for it may be due to other causes. Indiscriminate removal of the frenum is not warranted for the frenum assists in controlling movement of the upper lip and is important in aesthetics. Frequently too, the centrals may be moved together by

orthodontic means and the interference of the frenum overcome by pressure atrophy without surgery.

A wide diastema between the maxillary central incisors may also be caused by one or more supernumerary teeth or it may be due to the absence of one or both lateral incisors. (Fig. 16, 17, 18)

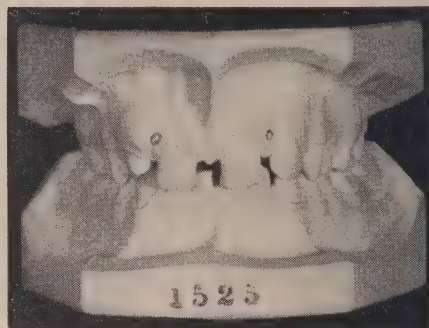


FIG. 16

Diastema between maxillary centrals is due to the congenital absence of the lateral incisors and is not caused by the frenum.

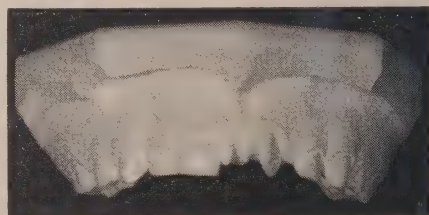


FIG. 17

Two supernumeraries which will cause a diastema and malocclusion of the centrals. They should be removed as a preventive measure.

The aetiology must be established with the aid of roentgenograms before instituting any therapeutic measure.

Removal of the supernumerary will permit the centrals to move toward each other but orthodontic therapy may still be necessary to obtain contact. Bands are required for the centrals. If the centrals are equidistant from the midline and a tipping movement is indicated, a wire spur or loop is soldered on the labial of each band. (Fig. 19) Gentle pressure is applied once a week by a silk ligature between the spurs. If

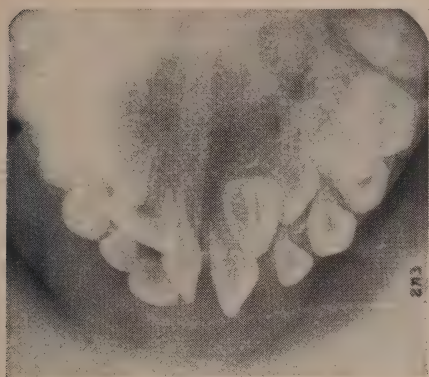


FIG. 18

Occlusal roentgenogram of case shown in Fig. 17. It shows the two erupted teeth to be supernumeraries and the separation they have caused between the developing central incisors.

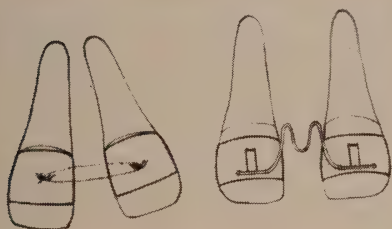


FIG. 19

On the left is shown an appliance for tipping the centrals towards each other. On the right a pin-tube appliance for moving the teeth bodily.

bodily movement is indicated, half-round vertical tubes or edgewise brackets are used instead of the spurs. With the tubes an M shape light wire to which accurately fitting pins are soldered while with the edgewise brackets either a loop in the appliance or ligatures may be used to bring the teeth together. If one central is to be moved less than the other or moves more readily, additional control is obtained by adding the lateral or deciduous cuspid on the same side to the appliance. The same mechanism can be used in the case of an abnormal frenum. The centrals should not be moved before there is considerable root development to avoid possible root distortion.

If a lateral is missing, merely bringing the centrals together will not maintain them in contact. They must be retained until proximal support on the distal of the central can be obtained by means of a restoration or through mesial movement of all the teeth on the same side. (Figs. 20, 21)



FIG. 20

Wide diastema between centrals due to congenital absence of lateral incisors.



FIG. 21

Finished case shown in fig. 20. Centrals were moved together by pin-tube appliance. The centrals separated in the interval between the removal of the retainer and insertion of the pontics.

UNDESIRABLE HABITS

Habits which exert pressure on the teeth and jaws such as thumb sucking, lip biting, tongue thrusting and pillowing are a potential cause of malocclusion and dentofacial deformity. Although malocclusion does not always result from these habits it does so very frequently. Whether a malocclusion results and its extent depends on the

nature of the habit, the intensity of the pressure applied, the constancy with which it is followed, the time over which it persists and the bony response. The habits should not be ignored or passed over lightly. To prevent the ill-effects they may cause means to discontinue the habit at an early age.

In approaching the problem of discontinuing an undesirable habit it is well to consider the reasons for it. Thumb sucking is the most common habit and can serve as a basis of discussion. Sucking a thumb is considered normal in early infancy when everything within reach goes into the mouth. It is a transitory phase in the development of the child. If persisted in beyond that stage, the habit may be retained for a long time and be definitely pernicious in its effects.

Sucking the thumb affords comfort and consolation. It is usually resorted to when the child becomes hungry or fatigued, when it is frustrated in its efforts or desires and when it is scolded or disapproval is shown of its behaviour. The first approach is to avoid excessive hunger and fatigue and provide constructive play with as little frustration as possible. Some degree of reprimand and disapproval is necessary for disciplinary training but this may be countered by considerable love and affection. The habit may be overcome by replacement with another habit. For example, if the child sucks its thumb as a means of going to sleep, it may be given its favourite doll to hug instead. Reasoning with the child is often effective when accompanied by patient and kindly explanation of the consequences. Nagging and threats should be avoided as well as any tendency to impart a sense of shame.

Some objection has been raised to the use of forcible measures for breaking the habit on the grounds that it may be harmful to the mental and emotional development of the child. On the other hand dentofacial deformity may also be injurious and some training in self-discipline and control is essential. Strong measures may be

necessary but with their use care should be taken not to set up conflicts between parent and child.

Psychological aids may be tried first and if unsuccessful followed by physical deterrents. A toy policeman may be placed on the child's table to remind it not to suck its thumb. A record card with suitable rewards may be tried. Bitter tasting preparations help occasionally but some children tolerate and even like the taste. Various types of wire or rubber guards may be tied or strapped on the thumb to break the contact of skin to mucosa but some children pull these off. Mitts are sometimes effective. Elbow splints which prevent the elbow from bending easily may be sewn into the sleeping suit or used externally. Appliances in the mouth which are uncomfortable to the thumb have been advocated but they are also uncomfortable and even dangerous to the tongue and are not particularly advisable. When any physical deterrent is used it should be stressed to the child that it is being used as a reminder only. All thought or mention of punishment should be avoided. If, in spite of all efforts the habit is continued into late childhood, some consideration should be given to the social and emotional environment of the child and its adjustment to it.

In habits such as biting or pushing the tongue and sucking or biting the lip it may also be necessary to train the child how and where to place and keep the tongue or lip. Merely telling the child not to bite its tongue or lip is not helping to him and more positive direction must be given.

In conclusion while there are some aetiological factors of malocclusion beyond our control there are many more which we can control and thereby prevent a malocclusion from developing. There are also a number of simple therapeutic measures that we can apply to intercept a developing malocclusion in its incipient stage. By these means we can reduce the incidence and severity of malocclusion and dentofacial deformities.

That Flat Lower Again

by HOWARD J. MERKELEY, D.D.S., M.D.S., F.A.C.D., Winnipeg, Manitoba

THE full lower denture has long been a worry to the prosthodontist, especially when the ridge has become flat and exhibits few of the desirable factors that would assist in stabilizing a denture.

The steps necessary in making a full lower denture are many, so the possibilities of error are great. Care in each step, and good judgment will eliminate or control the latter to a degree and so successive clinicians have each evolved their own method. However, one of the most frequent points where error can and does creep in has not been recognized, with the result that many lower dentures continue to be a worry to both the dentist and the patient.

Coming back to technique, we have arrived at the try-in stage. The teeth have been set up in wax and have been placed in the mouth, the arrangement and the occlusion is satisfactory; but do we know that the lower has not tipped, rotated or slid a bit to adjust itself to occlude properly? We really have no way of knowing, yet we finish the lower after this try-in and when we place this processed lower it will also adjust itself to the occluding teeth as the try-in did, and frequently we cannot even now detect any adjusting movement of the lower. Soon chafe marks show up and we start to relieve them often with poor results over a long period.

For some time we have been adding the following step to our technique and have so eliminated a great deal of trouble. After the set-up has been OK'd, we roughen the tissue-bearing surface of the try-in base and using our choice of reline impression material we take an impression with the try-in base as a tray, occluding the teeth slowly and lightly. The base must be of the proper outline, and where necessary as in the cases of sharp ridge crests, it must be relieved before the impression material is placed upon it. After this latter impression has been removed from the mouth it is checked for relief spots; these are where the base shows through. They are relieved with a number 10 bur. Experience and judgment will dictate what you do at this point. The lower now is processed on the cast poured to this reline impression.

Probably all full lowers tend to shift more or less at the try-in stage; but where the ridge is prominent or knife-edged the problem of relief for the ridge crest must be considered, before the reline impression is taken; also we must be careful to use a readily flowable impression material as the flow-way is very narrow. This extra step in technique as outlined above has been found very valuable by us and has solved one of our chief worries with lower dentures.

ANNOUNCEMENT

LONDON CONGRESS—JULY 19-26, 1952

As the London Congress occurs during the height of the tourist season, hotel reservations and boat passages are becoming difficult to secure. The Canadian Dental Association appointed Thos. Cook & Sons Ltd., some months ago, to look after reservations for C.D.A. members. This firm is holding block reservations for C.D.A. members but we are given to understand that **reservations which are not taken up will have to be released early in February.** If interested, you should write Thos. Cook & Sons Ltd., 75 King St. W., Toronto, immediately.

A Modern Concept of the Hydrocolloid Technique*

by ORVILLE B. COOMER, D.D.S., Louisville, Kentucky

THE first patent for a reversible hydrocolloid was granted by the British Government on September 4, 1925, to Alphons Poller¹ of Vienna. It was called Negocoll, and it was supposed to be an improved material for moulding articles of all kinds, especially parts of living bodies. Poller perhaps did not even dream that during the next twenty five years his discovery would have a far reaching influence, not only on restorative dentistry, but on the mechanics and routine of dental practice as well. A similar material, under the name Dentocoll, was later manufactured by the DeTrey Brothers of Zurich, and it was introduced into the United States by the L. D. Caulk Co. Following this introduction, Golden² in 1932, Kern³ in 1936, and Skinner and Kern⁴ in 1938, added to our very meager knowledge of the material. Paffenbarger⁵ surveyed the work done on the material prior to 1940 and drew up valuable specifications for a hydrocolloid impression material. These specifications were and still are based on the use of the material as a medium for taking impressions for the construction of partial dentures. It remained for Sears⁶ in 1937, to first describe a technique for the use of these same reversible hydrocolloid materials in the construction of inlays and fixed partial dentures.

Since that time Knapp⁷, Shapiro⁸, Sears and Wooster⁹, Thompson¹⁰, Bignell¹¹, James¹², Granger¹³, McCollum¹⁴, Phillips¹⁵ and many others have made valuable contributions to the success of the various techniques in use today.

Granger¹³, James¹², Phillips¹⁵, and others have pointed out that some brands of hydrocolloid have different properties when processed and ma-

nipulated in the same manner. Also, that the same brand may exhibit different properties when the impression is stored in different media. For example, one material may show expansion when the impression is stored in potassium sulphate and contraction when allowed to remain in the air with a relative humidity of 100 per cent. Due to the fact that the hydrocolloid is, or should be, locked firmly to the sides and bottom of the tray, contraction of the material will produce a die that is oversize. This apparent contradiction has caused some erroneous conclusions to be drawn concerning the practical application of the material. At the present time there is no known brand of hydrocolloid that will consistently remain absolutely stable in any known media.

Another major problem is the fabrication of the dies and master models after an accurate impression has been obtained. The lack of rigidity of the material does not permit the packing of amalgam dies. While it is possible to copper plate hydrocolloid, most men who have tried it do not consider it a very practical procedure. An improved calcium sulphate hemihydrate die material, marketed under the name Dura Die, is the hardest of the present day die materials which may be used with hydrocolloid. This material has the disadvantage of requiring more time for fabrication. It is critical as to time and temperature, and since the die must be removed from the impression, fired and placed back in position, there is a chance of slight inaccuracy occurring in the master model. From a practical standpoint, it follows that the die stones are the material of choice to be used in making the dies and master models.

*Presented at the Convention of the Canadian Dental Association and the Eastern Ontario Dental Association in Ottawa, Sept. 25, 1951.

Here again, there is the problem associated with the setting expansion of the hydrocol. Phillips¹⁵ and Wooster¹⁶ have shown that the water : powder ratio used in mixing the stone dies is also an important factor, if extreme accuracy is to be obtained. It is obvious, therefore, that three very important variables must be considered: namely, hydrocolloids, the storage media for the impressions, and the die materials.

The impression material may expand or contract, depending on the brand used and the media in which the impression is stored. The die material has physical properties which vary according to the brand used, and the magnitude of the setting expansion may be altered by varying the water : powder ratio. While much work still needs to be done to correlate the most accurate combinations of brands of hydrocolloid, die material, and storage media, it has not been difficult for advocates of the hydrocolloid technique described in this paper to routinely construct multiple inlays and extensive fixed partial dentures with a high degree of accuracy.

TECHNIQUE

The following technique has been developed over a long period of time by the trial and error method. It is the result of the writer's experience, plus the experience of those mentioned in the bibliography, and many others to whom a great deal of credit belongs.

Tooth Preparation:

No impression technique will compensate for poor or inaccurate tooth preparation. This principle is especially true when using the hydrocolloid technique. Paffenbarger⁵ and Phillips¹⁵ have shown that if extensive undercuts exist in the preparation there will be a permanent deformation in the impression upon removal. It is also a well-known fact that hydrocolloid will not displace gum tissue, and that all margins of the

preparation must be exposed if an accurate impression is to be obtained by the use of hydrocolloid. If these two physical characteristics of the material are kept in mind, any standard or acceptable form of tooth preparation may be used. This, of course, does not mean that all margins of the preparation must be above the gum line. Many times the extension of the carious process will dictate that the cavity margins be carried below the free margin of the gingiva. This problem, which is considered by some to be one of the chief difficulties of the procedure, will be discussed later in the paper.

Processing Hydrocolloid:

The correct processing of hydrocolloid is one of the most important parts of the whole procedure. The essential steps are not difficult, nor are they extremely critical, but they cannot be ignored if routinely accurate impressions are to be obtained. First, the material must be boiled in a closed container for ten to fifteen minutes. The container may be the tube in which the material is packed, or it may be one of the metal mixing syringes made especially for this purpose. After the hydrocolloid has been boiled the required length of time, the container is stored in a water-bath which must be maintained at a temperature of 140°F. This temperature may vary slightly with different brands but all of them will fall within the range of 135°—145°F. It is important that the thermostat which controls the water-bath does not allow a variation of more than two degrees above or below the desired temperature. It is also necessary that the material remain in this tempering bath for at least thirty minutes. The material begins to have excellent working qualities at the end of two hours, and its best properties are obtained four to eight hours after boiling. It is difficult to explain, on a scientific basis, why this tempering process is necessary in developing the best working prop-

erties of the material. Long experience has shown, however, that it is one of the most important steps in the entire procedure. A very desirable though not absolutely necessary part of the armamentarium is a second water-bath that will maintain a temperature of 112°-115°F. The impression tray is filled with material which has been stored at 140°F. The filled tray is then placed in the second water-bath for a period of five to eight minutes before taking the impression. This step further narrows the range through which the hydrocolloid must be cooled after placing the material in the mouth. This last step is not only conducive to greater accuracy, but it gives the material a working quality not unlike soft modeling compound. Resistance is felt as the tray is forced to place and the material has sufficient body to displace the thinner material which has been placed in the cavities, with a small syringe or brush. If small syringes are used to place the material in and around the preparations, these are filled with a thinner consistency of hydrocolloid, boiled at the same time, and stored in the same 140°F. water-bath. It is well to prepare a sufficient amount of material each morning in order that it will always be properly tempered for usage when required.

Preparing the Mouth for the Impression:

Because of the physical properties of the material, three very important conditions must be met. The prepared teeth must be clean, they must be dry, and all margins or finishing lines must be clearly exposed. Unless these rules are rigidly observed, routinely accurate impressions cannot be expected. In mouths that are relatively immune to caries and free of periodontal involvements, all the margins and finishing lines are terminated just short of the gingival crevices. In these ideal cases, meeting all conditions is very simple and no difficulty should be experienced in obtaining satisfac-

tory impressions. The vast majority of cases, however, do not fall in this category, and will require the employment of one of the many procedures commonly used for displacing or removing the gingival tissue which covers the cavity margins. The methods used for this purpose have been divided by Thompson¹⁰ into four classes:

1. Vaso-Constrictors; such as Adrenalin Chloride 1 per cent, and Ephedrine Sulphate 3 per cent.
2. Styptics; such as Zinc Chloride 8 per cent, Tannic Acid and Alum, full strength.
3. Chemical cauteries or escharotics; such as Zinc Chloride 40 per cent, Sodium Sulphide, and Potassium Hydroxide.
4. Surgical Methods; such as the use of the knife, the electric cautery, the coagulator, and the radio knife.

Sewing thread, cotton yarn, household twine, or a wisp of cotton which has been rolled between the thumb and finger, may be used to carry the selected chemical into the gingival crevice.

The selection of the chemical to be used will depend upon the amount of gingival displacement necessary to expose the cavity margin and the state of health of the soft tissue involved. If the margin or finish line is just under the free margin of normal gum tissue, excellent results may be obtained by saturating a length of cotton yarn or string with one of the styptics such as 8 per cent zinc chloride, and gently packing this into the gingival crevice for a period of three to five minutes. If the cavity margin goes very deep and the gingival tissue is congested, it will be necessary to use 40 per cent zinc chloride. Great care must be exercised in using this strength, as it is a powerful escharotic. The cotton or yarn should be impregnated and allowed to dry before being used. The tissue should be dried with a blast of air, the impregnated cotton packed into posi-

tion, and a second packing of untreated cotton placed on this. This second packing will give added pressure, and also protect the rest of the tissues from the action of the zinc chloride.

If periodontal pockets are present, or the state of the gingival tissue is such that it will not readily return to a state of normal health, the use of the radio knife is the method of choice. By its use haemorrhage may be stopped, a periodontal pocket may be eliminated, and thus make it possible to secure an accurate impression, from which a satisfactory restoration may be made.

Some of the methods may appear to be radical or extreme, but in the long run they are not nearly as objectionable as placing ill-fitting crowns, bridges, or inlays in contact with the gingival tissue. It should always be remembered that periodontal surgery has shown that gingival tissue will return to normal when given a chance. An ill-fitting margin of restoration can only cause irritation and further destruction of tissue.

Taking the Impression

Preparatory to taking the impression, the following steps in the procedure must have been executed.

1. All preparations have been completed, and all margins or finish lines have been clearly exposed.
2. The hydrocolloid to be used in the tray, has been boiled and stored at 140°F. for at least thirty minutes, preferably longer.
3. The small syringes have also been boiled and stored in the same 140°F. water-bath. The small syringes do not, however, require the same tempering period, as the material which is used to fill the tray. The small syringe should be boiled twice daily, as storage for too long a period will cause the material to become too stiff to eject easily from the small cannula of the syringe.

The tray which has been selected is filled with the tempered hydrocolloid

and placed in the 115°F. water-bath. While this is being further conditioned, the mouth is thoroughly sprayed with one-half strength hydrogen peroxide, and then flushed out with warm water. At the end of five to eight minutes the filled tray is removed from the conditioning bath. The surface is smoothed with a wet spatula or moistened fingers. The tray is now connected to the rubber hose which has previously been connected to the saliva ejector, and the water supply. All preparations are dried, and carefully injected with the small syringe. Great care should be exercised not to trap air, especially in sharp cavity angles and pin holes. At this point the water is turned on and the cooling process started. The tray is then vibrated to place, being very careful that it is properly centred. If the material has been properly handled up to this point, considerable resistance will be encountered in placing the tray in its correct position. This resistance is not only conducive to a more accurate impression, but it tends to prevent the operator from inserting the tray too far and thus ruining the impression. Wax or compound additions to the tray are rarely necessary, in fact, they are undesirable, as they reduce the bulk of the hydrocolloid, thus limiting its elasticity. There is also the possibility that a critical part of the impression may be in wax or compound, thus rendering it unfit for use. The cooling process is continued for three or four minutes, depending on the volume of material to be cooled and the temperature of the water. Phillips²⁵ and Bignell²¹ have shown that chilling the material with ice water tends to distort the impression. One quart of water at 60°F. will cause a complete gelation of the material used in an average full impression. A safe temperature range for cooling media is 60°—70°F. Phillips¹⁵ has also shown that teasing or rocking the impression to facilitate its removal will cause permanent deformation in various

areas, thus impairing its accuracy. It is therefore recommended that the impression be removed with a quick, vertical snap, along the lines of the axis of the preparations. In some full arch impressions it is helpful to break the seal with an air syringe before attempting a quick removal. The impression upon removal is thoroughly washed with tap water, and it is then ready for the laboratory.

Pouring the Dies and Making the Master Cast:

Phillips¹⁵ is of the opinion that no brand of hydrocolloid, stored in any media, will remain absolutely stable for as long as thirty minutes. Many others have observed that the sooner the dies are poured, the more accurate will be the results. In view of these observations the following procedure is recommended: As soon as the impression is removed from the mouth it is washed to remove saliva and mucous. It is then placed in a bath of 2 per cent potassium sulphate for three to five minutes. The potassium sulphate solution gives a harder and smoother surface to the dies, than that which will be obtained from the use of plain water, or from exposure to the air with a relative humidity of 100 per cent. During this short period in which the impression is immersed in the potassium sulphate bath, the dowel pins, die stone, Parallator and mixing slab are assembled. Since the correct water: powder ratio of the die stone is important, the material should be measured. It is convenient to have the powder previously weighed and stored in five gram packages. When ready to pour the dies it is only necessary to take one, two or more packages and add the correct amount of water with a pipette. By so doing, one of the troubles is eliminated.

The use of some sort of paralleling device for placing the dowels in the correct position, though not absolutely necessary, will add to the accuracy of the procedure and will save much

time as well. It is not necessary to use dowel pins, but since their use is preferred, the best technique for their use will be described.

The adjustable platform of the paralleling device is coated with oil or vaseline, a thick mix of impression plaster is placed on this and a sheet of cellophane placed over it. The impression is then removed from the 2 per cent potassium sulphate solution and the tray is imbedded in the plaster to a sufficient depth to make an accurate index. The dowels are then placed in adjustable mandrels which are mounted on the upper bow of the device. By tilting the table which supports the impression and by adjusting the mandrels on the upper bow, the required number of dowels are quickly and easily placed in the best position relative to the impression of each preparation. The upper bow containing the mandrels and dowels is now opened upward and backward on its hinge axis. The tray is lifted from its plaster index, and properly mixed die stone is vibrated into all the impressions of the prepared teeth. The tray is then quickly placed back on the platform of the instrument, and the bow to which the dowels have been attached is closed to its original position. Thus with one swift movement, all the dowels are placed in their most desirable positions. They are all parallel to each other, and each will be correctly centred in the finished die. The entire assembly is now placed in a closed humidor, and allowed to remain in an atmosphere of 100 per cent relative humidity until the initial set of the die stone is complete. This will vary with different stones but in no case should it remain longer than 20 minutes. The instrument is now removed from the humidor, the clutches holding the dowels are released and the upper bow is moved upward in a straight vertical position. The tray may now be lifted from its plaster index preparatory to the final pouring of the cast.

The die stone and protruding dowels

are lightly lubricated with some suitable separating medium, and the rest of the cast is poured in the usual manner. As soon as the final pouring of the cast is accomplished, the poured impression is again placed in the humidor, where it may remain for any reasonable length of time. After the stone has completely set, the poured impression is removed from the humidor, and separated. The resulting cast should be an exact duplication of a dental arch, with all teeth and preparations accurately reproduced in every detail and dimension.

Since all of the dies were poured at one time, each must be separated from the adjacent die or tooth before it can be removed individually. This is easily accomplished by the use of a very fine jeweler's gold saw. A cut is made from the buccal to the lingual, being sure that the cut is made deep enough to permit the dies to be easily removed. If reasonable care is observed in the waxing process and other subsequent procedures, the dies may be removed and replaced as many times as is necessary without affecting the accuracy of their relationship to each other. The chief advantage of this procedure is that the complete master cast is also the working cast. It is made by pouring only one impression, thus reducing the number of variables in the procedure.

Conclusions and Opinions:

1. The hydrocolloid technique though simple is not foolproof. A reasonable degree of care and skill is necessary to consistently obtain accurate results.
2. All tooth preparations must be clean, dry, and all margins or finish lines clearly exposed before attempting to take the impression.
3. If dimensional accuracy is desired, all dies and casts must be poured within thirty minutes from the time the impression is removed from the mouth, regardless of the brand of hydrocolloid, or the type of storage media used.
4. Proper tempering of the hydrocol-

loid after it has been boiled, adds greatly to the working properties and to the accuracy of the results. A thermostatically controlled water-bath for this purpose is essential.

5. Stone dies are more fragile than amalgam or copper. They are capable of dimensional preciseness but will not stand the wedging and hammering that is sometimes employed to force ill-fitting restorations to place.

6. To obtain the maximum in time saving features of the technique, it is necessary to have an assistant or technician to pour the dies and models. It is not always practical, and never profitable for the dentist to stop operating and attend to the laboratory procedures which in this case must be executed within thirty minutes from the time the impression is removed from the mouth.

7. When attempting complete mouth reconstruction which involves major changes in occlusal surfaces, the hydrocolloid technique is the only procedure which offers a practical solution to the problem of providing accurate dies and models of all the prepared teeth in correct relationship to each other, and in conserving time for both the operator and the patient.

8. Dentists have two primary obligations to their patients: First, to restore missing teeth or parts thereof to the very best of their ability; second, and of almost equal importance, to render this service in the shortest possible time. Of all the indirect procedures, the hydrocolloid technique best fulfils both of these obligations. It will enable more dentists to render better restorative service than any procedure which is known.

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1006 Hepburn Building.

Sectioning of Mandibular Impacted Third Molars

by Dr. JOSEPH FREEMAN, Winnipeg, Manitoba

THE IMPACTED mandibular third molar usually requires more skill in its removal than any other type of impaction, and it is more often found impacted than any other tooth. While there is a great variation in the different types of impactions and while possibly many impactions will differ in some minor detail, the technique required in their removal should be modified to conform to the variations which may be presented.

In any field of dentistry or medicine diagnosis is one of the most important procedures and success in removing impacted teeth depends upon how well the operator understands the problem he is confronted with before beginning the operation. Clinical examination is of utmost importance. Every detail of the site of operation should be gone into. In many cases a patient will present himself with an infected area around the impacted tooth. This should be cleared up before surgery is instituted. One of the basic principles is to have a healthy or as near healthy area as possible in order to facilitate healing after surgery and to prevent the sequelae of opening up new avenues of infections. The use of antibiotics such as penicillin, aureomycin, streptomycin systematically plus the local applica-

tion of 1% mixture of methylene blue and gentian violet to the affected area plus oxygen liberating mouth washes for home care by the patient, aid immensely in the clearing up of these areas of infection.

The first and second molars should be carefully inspected to see if (a) they have no caries involving the pulp (b) if resorption has occurred in the roots of the second molars by pressure of the crown of the impacted tooth (c) if there is cyst involvement. The root formation of the second molar should be particularly noted to determine whether or not it would be liable to become dislodged by an elevator technique where slight pressure is applied in the osseous structure against it. It should be determined how firmly the first and second molars are situated in the bone. Removal of an impacted third molar sometimes means a formidable operation and one cannot be too careful in making a proper diagnosis. No tooth should be removed without proper x-rays to determine in general its location, its relationship to the adjoining teeth and to the alveolar ridge, the formation of the tooth and the pathologic conditions surrounding the tooth. These x-rays should include the whole tooth as well as the structure below,

above and behind. In many cases occlusal and lateral jaw plates are needed.

TWO METHODS OF REMOVAL

There are two principal methods employed for the removal of third molars. In one (developed by George B. Winter) the bone is excised in order to remove the tooth in one piece. In the other, the tooth is sectioned so that it can be removed in parts. In many cases a combination of the two procedures is required.

C. Edmund Kells first described the method of tooth sectioning at a meeting of the National Dental Association in 1903. He states, "With this method the patient's jaw is handled gently and the tissues surrounding the tooth are injured but slightly." While he admitted that his method is not "quick and easy," he made the claim that it is "humane."

Thomas adopted the method of sectioning teeth in 1932. Feldman 1936; Pell and Gregory 1933, 1942; Gwin 1937; Morgan 1937, 1938.

The following are the advantages taken in part from an article by Pell and Gregory (1942)

1. Field of operation may be kept small — less post-operative swelling.
2. Bone removal is eliminated or considerably reduced.
3. Operating time is shortened.
4. Trismus is almost entirely eliminated.
5. No damage is done to the adjacent tooth.
6. Little damage is done to the surrounding bone.
7. Risk of fracture of the jaw is reduced.
8. Danger of injury to the mandibular nerve is lessened.

The armamentarium should be as simple as possible and the operator should use only those instruments which he finds most useful in his hands. Our armamentarium consists of: a scalpel, periosteal elevator, No. 1 SSW chisel, surgical mallet, Nos. 41



FIG. 1



FIG. 2



FIG. 3

and 301 Cleve Dent elevators, No. 560 straight handpiece fissure burs, bi-bevel bone burs, needle driver, half-round suture needle, No. 000 black surgical silk.

We do not use the mallet and chisel exclusively in sectioning the tooth. When the roots of the tooth are bifurcated the tooth will split easily with one blow, but where the roots are fused or have not developed, the line of cleavage is not often ideal for easy elevation and burs are then resorted to. In a straight horizontal impaction the tooth may often be split very easily and after elevation of the upper portion it

may be found that the lower portion is still locked in the cavity, then that half is cut by means of a No. 560 straight handpiece bur and crown portion is elevated up and out and then the root portion must be brought forward and out. (Fig. 1, Fig. 2, Fig. 3.)

Most teeth may be split with one sharp blow of moderate force providing the chisel is placed in the buccal groove and the direction of force is parallel with the long axis of the tooth. It is not advisable to use a mallet and chisel on every impacted tooth that has to be removed. On many occasions one may have to remove a third molar that has not formed completely in younger patients; an embedded tooth in an elderly patient which due to age and position has become practically fused to the mandible; a tooth which is embedded very low, almost at the lower border or an embedded tooth in an edentulous mandible which has resorbed considerably. In such cases force should be entirely dispensed with and burs used to free the tooth or section the tooth, or both as the average amount of force would result in a fracture of the mandible.

The removal of impacted teeth is a surgical procedure and all the basic principles of surgery should be strictly adhered to. The incision into the soft tissue should be sharp; as smooth surfaces heal readily. Only remove that amount of bone necessary for access and this should be done smoothly with the least amount of trauma. All spicules should be removed and the wound thoroughly cleansed before suturing. Suturing in many cases will result in

healing by first intention, but with the variety and quantity of bacteria present in the oral cavity, this is not always possible. Often the blood clot breaks down and treatment is necessary to keep the wound clean and the patient comfortable. The sutures should be removed and the wound thoroughly irrigated with warm saline solution and the area packed with sterile gauze lubricated with anaesthetic and antiseptic solutions. This should be repeated every forty hours until granulation tissue is formed at the bottom of the cavity and covering all the bony walls. Irrigation will then keep the area clean until it has completely built in.

It is impossible in an article of this nature to go into all the details in the removal of embedded and impacted teeth, but when a case presents itself a thorough study should be made and a plan for the removal formulated and then if any difficulties are encountered one may deviate from this plan but one should always have a basic plan from which to work. Surgical principles must always be adhered to and the end results will always be satisfactory to both the patient and the operator.

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It is not the POSSESSION of knowledge, of irrefutable truths, that constitutes the man of science, but the disinterested, incessant SEARCH for truth.—Karl Popper.

Thomas MacAulay in his essay on John Hampden said of Queen Elizabeth: "What she held, she held firmly. What she gave, she gave generously." To give generously is well. To give generously and wisely is the ideal.

It is well for a man to respect his own vocation whatever it is, and to think himself bound to uphold it, and to claim for it the respect it deserves.—Charles Dickens.

The Forum

THE PRESENT CONCEPTION OF THE AETIOLOGY AND HISTOPATHOLOGY OF DENTAL CARIES

by CECIL HEARMAN, D.D.Sc. (Melb.)

Conclusions of paper in Australian Jour. of Dent. Aug. 1951

1. Dental caries is primarily initiated by the enzymic degradation of fermentable carbohydrate material within the dental plaque.

2. The resultant concentration of organic acids within the plaque predisposes the enamel to a two-phase attack on its organic and inorganic constituents.

3. The attack involves a primary proteolytic degradation of the organic content of the surface enamel, but the manner in which this is accomplished is not yet understood. It is apparent that preliminary action is necessary, presumably of an acid nature, because it has not yet been demonstrated that sound enamel is subject to direct attack by proteolytic bacterial enzymes.

4. The first step is a dissolution of the protective enamel cuticle, which exposes the organic pathways and the calcified material to attack.

5. Protein hydrolysis causes a dissolution of the rod sheaths and frees the hydroxyapatite crystals within the rods and inter-rod matrix from their organic bond.

6. The inorganic material is then exposed to a secondary acid decalcification.

7. The relatively small amount of organic material in the enamel limits the degree of destruction in this tissue, the lesion proceeding as a small finger-like projection to the dento-enamel junction.

8. When lamellae are present, leading to the dento-enamel junction, the progress of the lesion is more rapid

and a greater amount of destruction takes place.

9. The proteolytic destruction of the enamel tufts at the dento-enamel junction causes a separation of the dentinal matrix from the enamel matrix, and causes a lateral spread of the lesion at this junction of the tissues.

10. Protein hydrolysis of the dentine releases the amino acids, aspartic and glutamic which cause a primary decalcification of the dentine.

11. The necrotic remains of the dentinal matrix undergo putrefaction by proteolytic bacterial enzymes derived from the oral cavity.

12. The resultant local alkalosis protects the inner walls of the enamel surrounding the lesion from further acid attack.

Finally, it must be emphasized that there is no longer any mystery about the cause of dental caries. We understand the nature of the causative mechanism and we know how caries could be prevented. Unfortunately, the obvious method of prevention, namely, the removal of the causative factors, is neither practicable nor acceptable to the sufferers from this disease, because it involves a radical change in the conventional dietary and in the commercial preparation of our staple carbohydrate foods. The real problem now confronting research workers is to find alternative methods of prevention which do not involve drastic changes of dietary habits and which do not clash with large-scale commercial interests.

ANALYSIS OF AIRBRASIVE PROCEDURES IN DENTAL PRACTICE

by SIDNEY EPSTEIN, D.D.S., San Francisco

Condensed from Jour. of A.D.A., Nov. 1951

There are instances where the use of the airbrasive technique alone may be sufficient, just as it is possible to complete a cavity preparation with a single bur. However, most frequently, airbrasive must be supplemented by the use of rotary instruments and hand instrumentation.

In order to remove stains and deposits from the exposed surfaces of the teeth dolomite (magnesium calcium carbonate) is used. After teeth have been cleaned with airbrasive, they lose their high vitreous lustre and have a dull satin-like appearance. However, the lustre can be restored readily by polishing with a rubber cup and a fine polish. Even if no repolishing is done, the teeth again resume a normal clinical appearance after three or four days.

In the only available reported studies to date, made by Bailey and Phillips it was shown that there was a definite change in the microscopic character of enamel cleaned with airbrasive dolomite in contrast to enamel cleaned with a rubber cup containing flour of pumice revolving at 5,800 rpm. The air abraded enamel was pitted whereas the enamel polished with a rubber cup and pumice showed fine light scratches. Whether this is significant and sufficient to affect the integrity of the tooth is not known.

Airbrasive procedure does not in any sense replace the need for careful extensive and diligent subgingival scaling with suitable curettage. In our experience with unilateral half-mouth studies, a dental hygienist was able to complete the scaling and polishing of the selected half mouth in approximately the same amount of time and with better results than an operator using the Airdent. Stippling of the gingival margins with the airbrasive powder also was noticed after polishing the teeth.

The fundamental use of the airbrasive procedure is for extensive cutting of intact enamel and dentine. Airbrasive will cut sound or intact enamel or dentine rapidly. One who has mastered the technique readily can prepare the outline form of any of the five classifications of cavities within the limits of his visibility. Establishing outline form with airbrasive, however, requires more dexterity, practice and careful consideration than when a rotary instrument is used. It is necessary to predetermine carefully and, if possible, to indicate the outline of the proposed cavity extension. It differs from the use of a bur in that it is difficult to extend a preconceived outline in two dimensions without increasing the third dimension or depth of the cavity. It is possible to prepare at least 75 per cent of the cavity outline in a tooth with initial caries using the airbrasive. However, the remaining 25 per cent, more or less, of the cavity detail, that is, the careful and accurate finishing of cavity walls, especially the gingival wall, the placing of retention form and the removal of remaining caries, must be completed with rotary drills or hand instruments.

In preparing cavities in teeth with initial caries, the airbrasive finds its greatest use. It is most useful in a practice that has many children and young adults with initial caries attacks. Satisfactory use of airbrasive in operative procedure requires the placement of the rubber dam to isolate the field of operation.

Another problem in airbrasive procedures is that the important guide of tactile sense is not possible. Therefore, direct and clear visibility is a necessity. It is impossible to keep the dental mirror clear of powder to provide a working image. Damage to the polished accurate surface of the mirror occurs all too readily. If any part of the abra-

sive stream strikes the mirror it is immediately fogged. Eye glasses, loops and mirrors should be rinsed under a strong stream of water before drying and polishing.

There is more eye fatigue in the use of the airbrasive since vision is the only guiding control. The cutting stream must be watched at every moment. It is unwise to make cuts on surfaces where direct vision is not possible. Fear of pain is one of the important factors that strongly deters patients from visiting their dentists. While there is no question that the airbrasive principle is of great benefit, real pain is caused at times by the frictional force of the airbrasive particles and discomfort is experienced because of the reduction of the surface temperature of the tooth. Local anaesthetics should be used, not only to allay the pain of the airbrasive, but for the other phases of operative procedure that are a necessary part of the over-all tooth restoration; namely, placement of the rubber dam clamps, supplementary instrumentation, whether it be the use of rotary instruments or hand instruments to make terminal extensions and remove carious material or the placing of matrices and restorations. If anaesthesia is not used there will be a certain amount of reluctance or resistance on the part of the operator to complete satisfactory preparation of the cavity and a consequent lowering of the quality of the operator's dentistry.

In a realistic approach, the cost and physical dimensions of the machine are

a necessary consideration. In a small operating room its size presents certain physical handicaps and many inconveniences. The apparatus does not make it possible to do more dentistry of superior quality or as much dentistry of the same quality in the same length of time as the conventional procedure. If one has a well-established practice and one's time is filled to capacity, this innovation becomes somewhat of an obstacle. It becomes an added expense to the office and will not bring sufficient returns to compensate for the time and money for post-graduate training as well as for the cost of purchasing and maintaining the equipment.

Patients are most receptive to airbrasive procedure and can be convinced easily of its virtues and acclaim them. For example, if the prophylaxis is done without scaling, the patients are appreciative of that fact, not realizing the incompleteness of the prophylactic procedure. The patients are grateful also for the fact that there are no rotary drills and for the absence of vibration and bone conducted sound. Many dislike the noise of the recovery apparatus (suction used) which is disturbing also to the operator if the operating room is too small. The machine is too heavy to be easily moved from one operating room to another. Its physical size and position also make it difficult for the dental assistant to give correct or adequate chairside assistance in an office of limited space. It becomes a real obstacle and hindrance to good teamwork between dentist and nurse.

To look at his picture as a whole a painter requires distance; and to judge of the total scientific achievement of any age the standpoint of a succeeding age is desirable.—John Tyndall, "Science and Man."

Surely human affairs would be far happier if the power in men to be silent were the same as that to speak. But experience more than sufficiently teaches that men govern nothing with more difficulty than their tongues.—Benedict Spinoza.



VANCOUVER, BRITISH COLUMBIA

Part of the business section and the water front appear in the foreground. In the centre is Burrard Inlet, and, beyond, the North Shore, nestling beneath the mountains of the Coast Range.

At left centre is seen part of beautiful Stanley Park, jutting into the Inlet, with the causeway leading to the naval station, H.M.S. Discovery, on Deadman's Island. At the extreme left is the Vancouver Yacht Club.

For the **combined convention of the C.D.A. and the B.C.D.A.**, no more delightful setting could be found than Vancouver, the playground of the West Coast.

Golfing on spectacular courses; mountain climbing the hard way, or, if you prefer, by chair lift or even by car, bringing magnificent views over the Gulf Islands to the Olympics; boat trips for hours or for days, to Victoria and other ports on Vancouver Island, among the Islands, or

by the inland passage to Alaska; fresh water trout fishing, or salmon fishing in the salt chuck, often within sight of the city; swimming in the many pools or off the beaches, with snow capped mountains in the background; great shopping centres; famous eating places — all these, and many more forms of entertainment await your choice.

So, plan now to attend:

THE COMBINED CONVENTION OF THE C.D.A. and the B.C.D.A. AT VANCOUVER, BRITISH COLUMBIA

June 15-16-17-18, 1952

Cheques or money orders for registration fee of \$15.00 should be made payable to Doctor Chas. M. Whitworth, Room 218, Medical Dental Building, Vancouver, B.C., and should accompany applications for hotel reservations, which will also be handled by Dr. Whitworth.

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ART EXHIBIT

Doctor J. Bricker, of the Medical Dental Building, Vancouver, is arranging an Art Exhibit which will be a major feature at the Convention. Dentists throughout Canada, or members of their families, are asked to communicate with Doctor Bricker if they have anything in the nature of oil or water colour paintings, etchings, photographs, sculpture or other similar objects of art of their own creation which they are willing to display.



VANCOUVER, LAND OF THE THUNDERBIRD
CANADA'S EVERGREEN PLAYGROUND

ANNOUNCEMENTS

● **GOLDEN JUBILEE MEETING OF THE CANADIAN DENTAL ASSOCIATION IN CO-OPERATION WITH THE BRITISH COLUMBIA DENTAL ASSOCIATION IN VANCOUVER, B.C., JUNE 15-18.**

The registration fee of \$15.00 may now be sent to Dr. Chas. M. Whitworth, 218 Medical-Dental Building, Vancouver, together with requests for hotel reservations. An outstanding program is already assured and the entertainment committee is working hard to provide some real West Coast hospitality and entertainment for visiting members.

● **DENTAL COUNCIL OF CANADA EXAMINATIONS, MAY 26-31** at the College centres. Oral examinations will be held at a time convenient to the Oral Examiners.

● **THE 85TH ANNUAL CONVENTION OF THE ONTARIO DENTAL ASSOCIATION** will be held in the Royal York Hotel, Toronto, **MAY 11-14, 1952.**

● **FOURTH MARITIME DENTAL CONVENTION**, Lord Beaverbrook Hotel, Fredericton, N.B., **JULY 7-9.**

● **28TH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** will be held in Montreal **OCTOBER 22-24, 1952.**

● **AMERICAN ACADEMY OF DENTAL MEDICINE** in Montreal **MAY 29-31.**
All interested dentists and physicians are invited.
National Sec.—Dr. Wm. M. Greenhut, 124 East 84th St., New York 28, N.Y.

● **ALUMNI-ALUMNAE ASSOCIATION OF THE EASTMAN DENTAL DISPENSARY** second reunion Sunday, **APRIL 6**, at the Eastman Dental Dispensary in Rochester.

● **AMERICAN DENTAL ASSOCIATION** Convention, St. Louis, Mo., September 8-11, 1952.

● **1952 CONGRESS OF THE EUROPEAN ORTHODONTIC SOCIETY**, July 14-17 in Amsterdam. Pres. J. A. C. Duyzings, Utrecht, Netherlands.

● **INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH:** Founded by William J. Gies, December 20, 1920. The 1952 General Meeting will be held at Broadmoor Hotel, Colorado Springs, Colorado, March 21-23, in collaboration with the meeting of the American Association of Dental Schools at the same place on March 24, 25 and 26.

● **THE DISTRICT OF COLUMBIA DENTAL SOCIETY'S 20th ANNUAL POSTGRADUATE CLINIC** will be held **MARCH 9-12, 1952**, at the Shoreham Hotel, Washington, D.C.

● **THE INTERNATIONAL ACADEMY OF ORAL DYNAMICS** will be held at the Shoreham Hotel during the District of Columbia Postgraduate Clinic, **MARCH 9-12.**
Please contact—Dr. James J. Greeves, Pub. Chairman, 1801 K Street, N.W., Washington 6, D.C.

● **TUFTS COLLEGE DENTAL SCHOOL**, Division of Graduate and Postgraduate Studies, announces courses in the **AIRBRASIVE TECHNIQUE.**
Consecutive five and a half day courses Monday through Friday from 1.30 to 9.00 p.m., and Saturdays from 9.00 a.m. to 3.30 p.m.

Course No. 204—March 24-29, 1952	" "	208—July 21-26, 1952
" " 205—June 2-7, 1952	" "	209—July 28-August 2, 1952
" " 206—June 23-28, 1952	" "	210—August 4-9, 1952
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Tuition fee \$200.00. Class limited to 14.

Chairside instruction and experience with patients will be stressed.



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Editorial

PATIENT EDUCATION AS TO FEES

Patient education, particularly with regard to the question of fees, should play a much larger part in our daily practice than is customary. The accompanying cartoon speaks for itself and while it was intended for the medical profession, it has an even greater application to the dental profession since it is not difficult for a dentist to make a diagnosis, figure out the required fee and discuss the same with the patient.

The other day a young lady was in my office and she commented that a friend of hers had paid fourteen dollars in a certain large eastern city to have her teeth cleaned. I asked if this had been accomplished in one appointment and the reply was, "No, it took two appointments." Obviously, this service was not an ordinary prophylaxis but the periodontal treatment and its significance was not explained to the patient.

Then again, how often do we find a diagnosis made, the same explained to the patient and approved, and no mention made of the fee involved. So often such procedures give rise to unnecessary misunderstanding and possible difficulty in collecting a just fee.

According to George J. Rogers, Program Director of the American Economic Foundation, "There is nothing wrong with the thinking of the Canadian working man that cannot be cured by the simple truth about how industry operates." And it is equally true that there is no problem arising between patient and dentist with regard to fees that cannot be solved by a thorough explanation and understanding before the service is rendered.

Since the inception of our Group Practice we have used the chart system

of recording. On this chart is a diagram of the teeth. When the examination is made all defects are marked in pencil on the teeth, that is caries, periodontal pockets, missing teeth, pulpless teeth, etc., also the type of treatment or replacement. A fee is marked opposite each defect. When the examination is complete the items are summarized on the following "Estimate Form" which is also a part of this same chart.

ESTIMATE

Date
Alrdy.
Roen.
Exam.
Proph.
Peri.
Treat.
Sup.
Inf.
Sup. D.
Inf. D.
Reline
Gen. A.
Extra
Total
Initial

"Alrdy." means "Already" and refers to fees already entered as the result of emergency treatment, etc. "Roen." is the x-ray fee, then follows the examination fee. The prophylaxis fee is entered and the periodontal fee is the sum total of the periodontal operations already indicated on the tooth diagram. We use the next item "Treat." to indicate such extra items as a stimulator, tooth brush, etc. which is to be given to the patient. "Sup." is for "Superior" and is the total of items marked on the upper teeth and "Inf." those on the lower. "Sup. D.", "Inf. D." and "Reline" obviously refer to dentures. "Gen. A." is for an anaesthesia fee and "Extra" for unforeseen items. When the total of the various items is obtained and is given to the patient, the word "Given" is written opposite the estimate. If the patient approves then "O.K." is also written here and the operator's initial is then placed below.

As each operation is completed the pencil marking is inked in and numbered consecutively, the number being transferred to the opposite side of the chart and the fee entered on the same line. On this one chart all information relative to the patient is entered, or recorded, as to where such information can be instantly found.

This program is quite simple and very effective and we do not have to contend with the problem of disputed accounts. Many systems can be used and this one is only a sample of a very simple one.

The ordinary citizen must be made to feel that he is receiving a fair deal in the dental office, that he is receiving a health service of the greatest magni-

Time to Get That Step Fixed



© Medical Economics Inc.

tude, and it should be our hope and aim to have the patient eventually feel towards Dentistry that it is something to have lived in an age that could produce such creative genius.

M.H.G.

BOOK REVIEW

Accepted Dental Remedies, including a general index, a distributor's index, an index to current reports from the Bureau of Chemistry and the Council on Dental Therapeutics of the American Dental Association, and an index to more recent reports on products not included in Accepted Dental Remedies. 17th Edition, 211 pages. Published by the American Dental Association, 222

East Superior Street, Chicago, Ill. Price \$1.50.

This book is published annually and is designed to serve as a handbook of dental therapeutics. In addition it contains a list of therapeutic products marketed in the United States which are acceptable to the Council on Dental Therapeutics.

Included in this 17th edition are up-to-date

evaluations of effectiveness of nearly 700 commercial dental products, with special chapters giving the latest data on antiseptics and germicides for topical application, antibiotics, analgesics, sedatives and hypnotics.

The Council endeavours to provide the profession with prompt reliable information on

the status of recently developed dental products, special emphasis being placed on consideration of evidence of safety under the conditions of use.

This book should prove helpful to every dentist.

M.H.G.

ROYAL CANADIAN DENTAL CORPS NEWS

Major W. R. Cunningham has been posted to the DGDS (AG Br). Major Cunningham was born in Elgin, Man. On graduating from the University of Toronto in 1934, he practised dentistry in Souris, Man., until his appointment to the C.D.C. in November 1939. Major Cunningham embarked for Hong Kong with the Canadian Force where he was captured and spent over three years as a Japanese prisoner of war.

During December the R.C.D.C. School conducted a special course attended by a group of senior officers. In addition to the regular instructional staff of the school, Dr. James Coupland, Dental Oral Surgeon of Ottawa, gave lectures and demonstrations on the various aspects of oral surgery. Mr. E. S. Griffith, Research Director, and Mr. A. W. Windish, Technical Director of the Ticonium Laboratory, Albany, N.Y., presented the latest developments in the use of ticonium.

Headquarters

On Dec. 13 last, **No. 9 Coy., RCDC (RF)** held a very successful **Christmas party** for its officers and other ranks and their lady guests, in the Sergeant's lounge at Mewata Armouries in Calgary.

Included in the group of about 75 merrymakers were several officers and wives from points outside of Calgary who travelled over many miles of highways made hazardous by a recent rain followed by freezing temperature. These people were: Capt. and Mrs. John B. Rose-

borough from Three Hills; Capt. and Mrs. C. T. McNichol from Didsbury; Capt. and Mrs. T. A. Alexander from Nanton; Capt. L. W. Irons from High River. Capt. V. E. Christou came from Lethbridge by plane especially for the occasion. This is a form of proof of the keenly enthusiastic and supportive personnel of which No. 9 Coy. is so proud.

The highlight of the evening was a presentation to Lt. Col. E. E. Groff of a 400-day clock, the base of which had been suitably engraved. Col. Groff recently retired as Commanding Officer of No. 9 Coy., after having organized and developed it to the point where it is now a strongly organized, efficient nucleus of qualified and well-trained personnel, ready and able to fit into the preparedness picture wherever it should be needed.

All present were most enthusiastic in their praise for Col. Groff's work with the young Coy. and expressed sincere regret in his leaving.

To the new Commanding Officer, Lt. Col. C. S. Lea, MBE, his 21/C Maj. C. M. Johnson and adjutant Lt. C. K. Cochran, DFC, and all officers and other ranks of No. 9 Coy. is left the task of maintaining the high level of activity and efficiency set by Col. Groff, and wherever possible to develop greater energies to the advancement of the unit and the Corps.

A sumptuous buffet luncheon had been prepared and was a welcome conclusion to No. 9 Coy.'s first Unit mixed function.

L. K. Brooks, Calgary

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

Special 50th Anniversary Issue of the Journal: In celebration of the 50th Anniversary of the founding of the Canadian Dental Association a special issue of the Journal is in the process of preparation. This issue is to be published June 1st next and will contain special articles on the growth of dentistry in Canada. It is proposed that the issue will be an en-

larged one containing information representing all parts of the country.

Automobile Insurance Broadened: Announcement has been made that in all provinces, except Quebec and Newfoundland, a new automobile insurance policy will be available after January 1, 1952. This policy gives broader coverage and

new benefits never before provided for under automobile insurance in Canada.

Of particular note is the new coverage if anyone (other than an employee or garage man who is operating or repairing your car) is injured while in or while getting in or out of your car, the insurance company will pay expenses incurred within one year following the accident for medical, surgical, **dental**, ambulance, hospital, professional nursing and funeral services.

Past-President Lowery Recognized by His Society: At a regular meeting of the West Toronto Dental Society Dr. R. P. Lowery, Past-President of the Canadian Dental Association, was recognized and presented with a leather traveling case. In making the presentation, Dr. J. Methven, President of the West Toronto Society, stated that through Dr. Lowery's instigation the West Toronto Society was formed and through the years he had served in many official positions in organized dentistry, eventually becoming President of the Canadian Dental Association. He enumerated the many accomplishments for the profession gained under Dr. Lowery's leadership and expressed the pride of the West Toronto Society in having him as one of their members.

Statistics respecting Dental Economics: Each year the Department of National Revenue issues a publication entitled Taxation Statistics. The various tables given are for returns made two years previous to the year of issue. The 1951 volume gives figures for the year 1949. Of interest is the table listing Canadian Taxpayers by Occupation in order of average income from the highest to the lowest. The first seven occupations are listed below in this order as given.

The average income of the Canadian taxpaying dentist for the year 1949 was higher than for the immediately preceding years. Comparative figures are as follows:

1946	—	5,289
1947	—	5,713
1948	—	5,395
1949	—	5,748

1951 Transactions: The English edition of the C.D.A. Transactions for the year 1951 are now distributed. The edition in French will follow shortly. The Transactions furnish the membership with a concise report of the activities of the Association for the current year. Among the objectives in publishing the Transactions is to create an informed membership.

Memorandum respecting Income Tax Returns: A memorandum respecting the income tax returns of members of the dental profession is in the course of preparation in cooperation with the Department of National Revenue. Certain amendments have been made which will affect the returns of dentists. Distribution of this memorandum will be made early in the new year.

Information on British Columbia: The intention of many members attending the Vancouver Meeting next June is to spend some time on the West Coast following the meeting. British Columbia is at its best in June and there are many beautiful trips which can be taken, or locations available where a holiday can be spent. Detailed information may be obtained by writing:

British Columbia Government,
Travel Bureau,
Victoria, B.C.

Canadian Taxpayers by Occupation—1949

Occupation (Arranged in Order of Average Income)	No.	Income			Tax		
		Average Income	Total Income (In Millions)	% of Grand Total	Average Tax	Total Tax (In Millions)	% of Grand Total
Engineers and Architects	1,210	10,428	12.6	0.20	\$2,460	3.0	0.59
Lawyers	3,870	9,533	36.9	0.57	2,019	7.8	1.56
Medical Doctors and Surgeons	8,010	9,009	72.2	1.12	1,660	13.3	2.65
Dentists	2,920	5,748	16.8	0.26	681	2.0	0.40
Investors	43,120	5,719	246.6	3.83	1,013	43.7	8.72
Forestry Operators	650	5,295	3.4	0.05	728	0.5	0.09
Business Partners	42,250	5,276	222.9	3.47	755	31.9	6.37
Sole Business Proprietors with Employees	73,590	5,207	383.2	5.96	721	53.1	10.60

NEWS FROM THE PROVINCES

MANITOBA

The November meeting of the **Winnipeg Dental Society** with Dr. Leroy Kurth of Chicago, well known for his full denture research in the United States, was another well-attended meeting. In October we had Dr. Carl Miller telling us how to avoid full dentures by the stitch-in-time use of amalgam for the use of which in the proper manner Dr. Miller is well qualified to speak. But having arrived at the edentulous state Dr. Kurth is equally qualified to tell the dental profession how to render the best denture service. Dr. Kurth won the Nationwide essay contest sponsored by the Chicago Dental Society in 1941 with his "Mandibular Movements in Mastication" essay. After listening to him for a whole day one wonders how any dentist could learn and remember so much about the pitfalls of full denture construction, and the technique for avoiding them. It makes one wonder too how so many dentists, not knowing much about the pitfalls, so frequently insert full dentures which seem to masticate well and please the possessors. It may be just pure good luck.

The Temperomandibular Joint is receiving its full quota of attention these days.
J.F.M.

ONTARIO

The **Ontario Dentists' Annual Bonspiel** was held this year again at the Granite-Waterloo Club in Kitchener on December 12. The winning rink was skipped by Dr. Jack Trelford. The other members of his rink were Dr. R. W. Marshall, Dr. J. M. Sheldon and Dr. R. G. Ellis. The runner up rink was skipped by Dr. J. A. Spellman of Kitchener and he was supported by Dr. Roy Winn, Dr. F. Shantz, and Dr. James Boyd. Prizes for the highest single score went to an Owen Sound rink. Dr. H. B. Legate, Dr. George McKee, Dr. Bob McKee, and Dr. E. W. Sadler. A special prize went to a Hamilton rink, Dr. W. J. McEwen, Dr. Lorne James, Dr. W. Riseborough and Dr. Holley Dier.

Dr. Harold Campbell of Orangeville and Mr. Charles McKenna were in charge of arrangements.

The **Staff Letter of the FACULTY OF DENTISTRY**, Toronto reports extramural lectures as follows:

January 11 Dr. G. Nikiforuk at Niagara Falls (Niagara Peninsula Dental Society)

January 14 Dr. F. T. Pearson at Ottawa (Ottawa Dental Society)

January 16 Dr. G. W. Johnston (Kingston Dental Society)

January 16 Dr. A. W. S. Wood at St. Thomas (Elgin County Dental Society)

January 24 Dr. W. J. Ross at Chatham (Kent County Dental Society)

January 31 Dr. R. S. Woollatt at Simcoe (Norfolk County Dental Society)

Dr. Basil G. Bibby, director of the Eastman Dental Dispensary, Rochester, New York was guest speaker at the **Royal Canadian Institute** at Convocation Hall, Toronto on January 19. This was a public lecture entitled "Dentists Without Drills". It would appear the subject was a bit misleading to a few of the audience who hoped to hear about some new invention. Dr. Bibby gave a progress report of the advancement of dental science in recent years. He pointed out medical research had done much over a period of many years with many workers. Dental research, he continued, is fairly new and has comparatively few workers. Twenty years ago dentists did not have one research worker with the status of professorial rank in any American University. Dr. Harold K. Box of Toronto was the first to receive such recognition. Dr. Bibby's thesis was that dental decay cannot be entirely prevented with our present knowledge but its prevalence can be greatly reduced.

The **Academy of Dentistry**, Toronto, entertained Dr. Paul K. Losch, Chief of Dental Service, Children's Medical Centre, Boston, as their guest essayist on January 16. His subject was "Children are Practice Insurance." He prophesied that dentistry of the future will be based on pedodontics; it is most important then that dentists direct their interest and attention to their young patients. Progress in pediatrics in the past ten years were used as an illustration of possibilities in dentistry.

"Dentistry for children is the job of the general practitioner", the speaker stated. If children are exposed to routine dental care, good adult dentitions can be expected. The principal problems in dental care of children have to do with *Control Of Dental Decay, Growth Guidance, Child Management and Health Education of Parent and Child*. The dentist in general practice should make use of the best in present day knowledge and constantly be alerted to new information made available through research.

In the matter of caries prevention the speaker assumed a very conservative attitude. He favoured the use of sodium fluoride treatment of communal water supply and that the local application of

sodium fluoride to the teeth of children might have some effect.

The Convention Committee of the **Ontario Dental Association**, under the Chairmanship of Dr. Harold Shepherd, has arranged an interesting program for the delegates at the Annual Meeting being held May 11-14, at the Royal York Hotel, Toronto.

The opening function will, of course, be the Sunday Evening Musicale held in the Concert Hall. Outstanding artists have been secured and will present a varied program for one hour. More and more members each year make this Sunday Evening date "A must" for the enjoyment of good fellowship and excellent music.

The Dental Public Health breakfast Monday morning will open the program. This will be followed by registration and scientific motion pictures.

Immediately following the luncheon two essayists will present papers on phases of caries control. Monday evening is reserved for class and fraternity dinners. Class executives are invited to arrange reunion dinner parties.

Group Clinics will be given on Tuesday and Wednesday mornings; there will be a Dental Public Health Luncheon on Tuesday followed by an Essay program in the afternoon.

The Convention Dinner and Dance will be held in the Concert Hall Tuesday evening. It is not necessary to arrange a party; leave your name with the Ladies' Committee, and table accommodation will be provided for you.

Plans for the Table Clinics Session on Wednesday afternoon are well advanced. Many new ideas to help you will be presented. This is an important part of the convention program.

See the March issue of this Journal for a complete list of Convention Essayists and Clinicians and their subjects.

QUEBEC

"Electronics in Endodontics" was the subject presented to the members of **The Montreal Endodontia Society** by one of its members, Dr. H. H. Pearson at the December meeting of the Society. Introduced by Dr. A. D. Richardson, Dr. Pearson reviewed the history of electronics telling how the high frequency current was used in dentistry back in 1909 and in the field of endodontics as far back as 1925. To give a clear picture to his audience as to how electronics "work," Dr. Pearson explained that in "Diathermy," heat is produced in, for example, a limb by the use of a high voltage and low amperage; in "Elec-

trocoagulation," heat is produced at a point by the use of both high voltage and high amperage; in "Electro-surgery," the cells are split by the use of low voltage and high amperage; and for "Electrodesiccation," as used in endodontics sparks are produced by the use of low voltage and low amperage and the use of a single pole at the site.

Following the viewing of slides, the clinician demonstrated the use of electrodesiccation in endodontics. Its use, he stated, is limited to all decomposed pulps, provided there are no metal restorations in the tooth in question. Following the usual procedure for entering and cleansing the canal, the pole is placed at least 2 mm. short of the apex and the current applied for two to three seconds only, followed by a quenching period; then again for two to three seconds, etc. until a total of twenty seconds desiccation has occurred. The canal is double-sealed and a culture taken at the next appointment. Two treatments are usually sufficient and the canal should always be desiccated immediately prior to the insertion.

Following an interesting question period, the speaker was thanked by Dr. R. Weiner. The meeting was held in the Dental Department of the Medical Building at McGill University. R.F.H.

Separate meetings of **The Montreal Dental Club** and the **Mount Royal Dental Society** were held in December to hear the second session of the University of Illinois Telephone Extension course on "The Denture and the Temporomandibular Joint". Previous to this the members of the Montreal Dental Club held a dinner meeting at which a new constitution was approved for the club. R.F.H.

The December meeting of the Société Dentaire de Montréal was held at the Windsor Hotel in Montreal, on December 18.

Dr. Lajoie presented a financial report on the "Oyster Party" held during the month of November. The nomination of Dr. Gérard de Montigny, as Vice-President of the Nomenclature Committee of the Fédération Dentaire Internationale, was noted and a letter of congratulations is to follow.

The guest speaker of the evening was André Mackay, M.D., who presented a lecture on "Pulmonary Complications following Teeth Extractions". Pulmonary abscesses may be caused by complete extraction of teeth under general anaesthesia. Dr. Mackay presented a case, apparently suffering from tuberculosis, after two pneumonias. This patient previously had teeth extracted under general anaesthesia and pus

aspiration into the lungs had determined lung abscesses with symptoms of pneumonia. This patient was hospitalized in a sanatorium and had to have a lobe of one of his lungs surgically removed. Twenty percent of the lung abscesses are caused by exodontia performed under general anaesthesia without any attention paid to the general resistance of the patient. General anaesthesia abolishes natural reflexes and bacteria easily get into the bronchi. Symptoms of lung abscesses are: weakness, soreness of the joints, temperature, pain on the side of the thorax, vomiting of purulent matters.

Differential diagnosis has to be established to eliminate other lung diseases. Lung abscess treatment is divided in two parts: one medical, the other surgical. The medical treatment consists in the drainage of the abscess, vitamin therapy, appropriate diet and use of chlorophyll to combat foul odors. Surgery is used in cases of recurrence. Before antibiotics, statistics indicated that lung abscesses healed in a proportion of 35%; today, the proportion is 60%. The lecturer illustrated his presentation with slides showing chest radiograms and concluded in saying that in order to prevent lung abscesses following exodontia, the dentist should extract only a few teeth at a time—preferably under local anaesthesia—after general and local prophylaxis.

Dr. Roger Charette extended to the lecturer the thanks of those present.

The meeting was closed with a cocktail offered to the members to celebrate the end of a very successful year.

G. de M.

NEW BRUNSWICK

The New Brunswick Division of the Canadian Cancer Society has been very generous by including the dentists of this province as well as the medical practitioners for their scholarship grants. Since these scholarships were started after the war, nine dentists in New Brunswick have taken advantage of the course and gone to New York for a week. They have attended the Memorial Hospital there where opportunities of observing cancer are probably as good as anywhere.

Recently three additional dental scholarships have been authorized and these dentists will probably leave early in 1952 for the course. Dr. D. C. Steeves of Moncton is the Dental Representative of the Scholarship and Medical Advisory Committee of the N.B. Division Canadian Cancer Society. J.F.E.

BRITISH COLUMBIA

At an Executive Committee Meeting of the B.C.D.A., reports were received from the Joint Convention Committee, which revealed that arrangements for the 1952 convention of the C.D.A. and the B.C.D.A. are well under way.

Doctor W. McPhail, of White Rock, and Dr. M. J. Butler, of Kelowna, were appointed to the Dental Health Committee, representing the Fraser Valley and the Interior Dental Societies, respectively.

A study of the matter of Public Relations occupied much of the time at this meeting, and plans were laid for a joint meeting with the College, for further discussion of the question.

As a result of activities of the Victoria Dental Society, the Union Board of Health of Greater Victoria and Esquimalt is now studying the advisability of recommending to the water supply company that fluoridation of the water supply be put into effect. The Victoria Society emphasizes that this procedure should be adopted on an experimental basis, and considered as an adjunct to other preventive measures, and not as a cure-all.

The Division of Preventive Dentistry of the Department of Health and Welfare reports that Doctor M. A. F. Hummel has been interviewed, and, subject to the approval of the Federal Health Grant Project, will be appointed as Dental Director of the Central Vancouver Island Health Unit. Further requests for similar appointments have been received from the Upper Vancouver Island and the West Kootenay Health Units, and it is hoped that the required appointments may be made early this year. Dental faculties of Canadian universities, and of two nearby American universities attended by many Canadian students are being notified of these vacancies, so that final year students who may be qualified for the positions may have an opportunity to apply.

Doctor Arthur Poyntz, of Victoria, was appointed chairman of the Dental Health committee of the B.C.D.A., at a recent meeting, replacing Doctor Ewart Gee, also of Victoria. Doctors Gee, Marshall and Poyntz will form the liaison committee for conferences with officials of the government health organizations.

Full approval was given to the recommendation of the Victoria Dental Society, on the question of fluoridation of communal water supply, on an experimental basis.

The January meeting of the Vancouver and District Dental Society was

Home Talent Night, following the custom of several years past.

The usual excellent program was arranged and presented under the chairmanship of Doctor Richard Cline. The following was the program:

CHAIR CLINICS:

DR. R. L. SCHARFF, "Amalgam Restoration in Distal of Upper Cuspid".

DR. N. C. FERGUSON, "Rubber Dam Technique, Clamp and Separator Application".

DR. GORDON JINKS, "Rubber Dam for Children".

DR. L. W. BEAMISH, "Class III Gold Foil".

TABLE CLINICS:

DR. DAVID ZACK, "The Diag. and Surg. Treatment of Intra-Oral Pathology".

DR. JOHN FOLKINS, "I am a Bleeder, Doctor" (Blood Discrasias associated with haemorrhage in oral surgery and exodontia).

DR. J. RYAN, "Orthodontics".

DR. K. A. OVIATT, "To Simplify Radiographic Exposure — The Technique and Discussion".

PAEDODONTIA STUDY CLUB, "Space Maintenance"—DR. D. McDONALD, DR. M. MICKELSON.

ENDODONTIA STUDY CLUB, "Conservative Endodontia, —Simplified", DR. R. J. O'NEIL, DR. ROBT. DENT, DR. C. AMES, DR. D. WARREN, DR. S. MARGOLESE.

DR. T. PARSONS, "Direct Acrylic Restorations, (Brush Technique)."

DR. C. R. HALLMAN, "Immediate Dentures."

DR. J. GANSNER, "Indirect Posterior Inlays (Hydrocolloid technique)".

DR. C. P. JOHNSON, "Pulp Capping Technique using Calcium Hydroxide".

DR. W. KYNOCH, "Anaesthetic Solutions".

ALBERTA

The Calgary Dental Society held its annual Ladies' Night Dec. 14 in the Sun Parlor of the Palliser Hotel.

Upon arriving each lady was presented with a rose corsage. Cocktails preceded the banquet. Dr. W. Ross Upton, chairman of the entertainment committee, introduced Mr. and Mrs. Frank Collicutt and Dr. and Mrs. J. Porter, President of the Calgary Medical Association. Mr. and Mrs. Collicutt were among the first white people to settle in Calgary. Dr. Upton mentioned that their only mistake was when they allowed their daughter to marry Dr. James Hood.

A Calgary Dental Society member of thirty years, Dr. B. J. "Red" Charles, was hilariously introduced by at least

four members of the Society. Dr. Charles then projected a series of films that he had collected entitled "Calgary in the Old Days". The films and commentary by Dr. Charles were enthusiastically received by all. For some the film renewed fond memories while others saw for the first time persons who contributed so much to the development and folklore of this country.

Dr. Charles was thanked for his most entertaining presentation by the Society's President—Dr. R. T. Shillington.

In November the Calgary Dental Society was honoured in sponsoring clinics by Dr. A. A. Campbell of Walla Walla Washington. Dr. Campbell conducted afternoon and evening clinics in Red Deer, Lethbridge and Calgary on the subjects of "Business Management in the Dental Practice".

The Alberta Dental Association contributed generously towards procuring this outstanding clinician. L.K.B.

The regular November meeting of the **Edmonton & District Dental Society** was addressed by Dr. A. D. MacPherson, the Medical Superintendent of the Provincial Mental Institute at nearby Oliver. The subject of Dr. MacPherson's paper was "**Some Modern Trends in Psychiatry**" and in it he ably and clearly presented the progress and development of psychiatric diagnosis and treatment along with a description of the presently accepted therapeutic methods. Dr. MacPherson also spoke of the sociological side of psychiatry and listed senility, alcoholism, and juvenile delinquency as being among the pressing problems which both the psychiatrist and the state face in this connection.

In the business meeting which followed, the dates of the society's curling draws were announced for the season. Some forty members have signified their participating interest in this recent addition to the society's recreational activities.

The location of the 1953 Western Canada Dental Society's convention was also discussed. The Edmonton Society is the 1953 host to that gathering and consequently has the traditional right of deciding its locale. The vote of the members present showed a marked majority in favor of Jasper so unless something unforeseen interferes, the convention will be held at Jasper Park Lodge in early June of 1953. Plans are already under way in this society to make the meeting a worthwhile and at the same time an enjoyable event.

The December meeting of the Edmonton & District Dental Society was addressed by the President of the Alberta

Dental Association, Dr. C. D. Husband of Red Deer. Dr. Husband chose as his topic, "The Work of the Alberta Dental Association." In his excellent address, the President spoke of the various problems facing the Association and the steps which the Board of Directors had taken and were taking to meet these problems.

The Board's activities might be divided into a legislative, a financial and a professional phase. Each of these is becoming more time consuming every year and a suggestion has been advanced that the profession of dentistry in this province might be better served if a "College" were set up to take over some of the responsibilities of the present "Association."

Dr. Husband's presentation contained many clear cut, thought-provoking statements and suggestions. A lively and somewhat heated discussion followed the President's remarks. Dr. W. E. Addinell and Dr. H. R. MacLean, Edmonton's members on the provincial Board of Directors, also addressed the meeting briefly as did Dr. R. A. Rooney, the Secretary-Registrar of the Alberta Dental Association.

It seemed to be evident from the proceedings that part of the average practitioner's ignorance of existing dental af-

fairs in this province is occasioned by the fact that he does not attend the annual Association meeting. Dr. Husband announced that in an attempt to revive attendance at this annual gathering, a two-day scientific session would be sponsored by the Board and would be held in Edmonton in late May in conjunction with the Association's meeting.

The evening's program provided the Society's members with a great deal of information and the inclusion of such a program on the agenda of any other society is recommended, especially if there is confusion in the members' minds regarding provincial dental matters.

The Society discussed the amalgamation of public health services presently under consideration in Edmonton and proper representation on any governing body is to be sought at an appropriate time.

The Society also elected the various committee chairmen for the 1953 Western Canada Dental Society convention which is to be held in Jasper, June 7-11, 1953.

About eighty members were present at the meeting which was presided over by the President, Dr. R. B. Cameron.

J. W. Neilson

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

Dentists' Bill:— Legislation before the British House of Lords proposes the creation, for an experimental period of three years, of a body of ancillary dental workers to perform extractions and fillings under supervision. This plan is reported to derive from the favourable report on the New Zealand dental nurses plan brought back by the five British dentists who studied it.

Persons in the new category will be employed only in hospitals and public dental clinics, the article states, and at the end of a three-year period the results will be examined before permanent recognition is accorded to the new group of dental workers.

The new proposals also provide that a dentist who holds a Commonwealth or foreign diploma shall be entitled to be registered if the General Dental Council is satisfied that "he has the requisite knowledge and skill." The Council may satisfy themselves either, as at present, by recognizing the diploma held by the applicant or by requiring him to pass an examination held under arrangements made by the Council. In the latter case, an applicant who twice fails to pass the

examination is not to be registered, unless the Council consider that "there are exceptional circumstances in his case which justify his admission."

NEW ZEALAND

Preventive Dentistry: — R. M. King, B.D.S., published in the October issue of the New Zealand Dental Journal a very interesting chart on Preventive Dentistry. This subject is divided into three headings, "Dental Caries"; "Periodontia"; and "Orthodontia."

Under "Caries" the dentist is to treat the patient by

1. Regular recall for examination and prophylaxis every 4 to 6 months.
2. Posterior bite-wing x-rays once a year.
3. Four topical applications of sodium fluoride at the ages of 3, 7, 10 and 13.
4. Susceptibility tests for diagnosis and education.

Under "Caries" the dentist is to advise the patient

1. In Oral Hygiene — Brush the teeth immediately after meals.
2. In Dietary—Reduce refined carbohydrates and replace with fresh fruit

and vegetables. Three big meals a day.

Under "Periodontia" the dentist is to treat the patient by

1. Restoration of function.
2. Sealing and prophylaxis of the teeth.
3. Properly contoured restorations.
4. Occlusal grinding.
5. Orthodontic Treatment.
6. Partial dentures and bridges.

Under "Periodontia" the dentist is to advise the patient

1. In Oral Hygiene—Use a tooth brush to stimulate the circulation; keratinize the gingival; clean the teeth and gingival crevice.
2. In Dietary — Proteins, vitamins, roughage.

Under "Orthodontia" the dentist is to treat the patient by

1. Supervision of growth and development.
2. Space maintenance for premature loss of deciduous teeth.
3. Correction of habits by simple appliances.
4. X-ray examinations for suspected abnormalities.
5. Properly contoured restorations.

Under "Orthodontia" the dentist is to advise the patient

1. In Correction of Habits—Thumb biting; finger biting; lip biting; mouth breathing.
2. In Dietary—Natural unrefined balanced diet.

SOUTH AFRICA

Bureau of Information of the Dental Association of South Africa: The Federal

Council has approved the principle of a bureau of information being established by the Association for the benefit of members of the profession. The object of this bureau is to provide, within the Association, an agency to which members of the profession may apply for information and assistance in regard to various professional matters which do not fall within the scope of the Association's normal activities and functions.

In order to achieve its object, the bureau will endeavour to give assistance and information on the following matters:

1. Assistantships, partnerships and locums wanted or available.
2. Full-time appointments available.
3. Practices for sale or wanted for purchase.
4. Equipment required or for sale.
5. Information and guidance on agreements for partnerships, nameplates, letterheads, etc.
6. Any other information or assistance that may be required in connection with matters of a professional nature.

PAKISTAN

The Pakistan Dental Review is the latest addition to the dental journals of the Commonwealth. Its appearance so soon after the partition of India is a welcome sign that the profession in the sub-continent has made a rapid recovery from the upheaval which was an inevitable accompaniment of the changes made by partition.

GENERAL NEWS

The Dental Alumni Association of the University of Toronto is sponsoring an appeal for a fund to provide scholarships in the Faculty of Dentistry.

Due to the rising costs of living and education, many desirable students, capable of making a notable contribution to Dentistry, are being influenced to apply to other Faculties where scholarship and bursaries are available. To date the Treasurer has received 185 donations which is very gratifying. This however represents 5.6% of the total number of grads. It is the hope of the Alumni executive that enough money will be forthcoming to provide several scholarships which will enable these students to be retained in our own Faculty.

A letter to this effect was mailed in November to every graduate of the Faculty of Dentistry of the University of Toronto. Other Alumni Associations, notab-

ly Medicine and Engineering are making substantial scholarship funds available. Dentistry can afford to do no less.

It is the sincere hope of the Dental Alumni Executive that every grad. will seize the opportunity to assist in this very necessary and worthwhile project.

Cheques may be mailed to Dr. J. A. Marshall, 1110 Bridge Street, Belleville, Ontario, Treasurer.

The American Association of Public Health Dentists is in favour of federal grants-in-aid earmarked for dentistry for the promotion of state dental programs in the United States and territories, with fluoridation to be "the main issue involved."

The people of San Francisco have voted by a sizeable majority to **fluoridate** their communal water supply. A referendum

on election day, November 6, resulted in 114,125 votes in favour of the measure and 88,377 against it.

Fluoridation of Drinking Water Harmless in Statement by American Medical Association:—The Council on Pharmacy and Chemistry and the Council on Foods and Nutrition of the American Medical Association, on November 12, issued a joint statement regarding the fluoridation of community water supplies. In the opinion of both Councils the addition of one part per million of fluoride to drinking water under approved methods of control is harmless. Other organizations which have approved the process for the purpose of reducing the incidence of dental caries include the American Dental Association, the United States Public Health Service, the American Association of Public Health Dentists, the Governing Council of the American Public Health Association and the State and Territorial Dental Health Directors.

The Effectiveness of an Ammonium Toothpowder in the Control of Dental Caries:—G. N. Davies and R. M. King of the Department of Preventive Dentistry, University of Otago, Dunedin, N.Z., draw the following conclusions from their research work as reported in the October issue of the *Journal of Dental Research*.

1. An ammonium ion dentifrice was tested for its effectiveness in controlling dental caries under conditions which simulate the use of the ordinary commercial product.

2. Under the conditions of the test the experimental ammonium ion toothpowder failed to reduce the annual increment of dental caries when its effect was compared with that of a control toothpowder.

3. In no sub-group was there a significant difference between the control and experimental groups.

4. The number of times per day that the powder was used made no apparent difference to this result.

5. No significant difference due to sex or age was manifest either in the control or experimental groups.

6. In three sub-groups the experimental powder produced a significant change in *Lactobacillus* counts after this powder had been used for one month.

7. In the same three sub-groups this significant change was not manifest at the end of the experiment.

8. At the end of the study period there was no significant difference between the *Lactobacillus* counts of the control and experimental groups.

From 1946 to the end of 1950 there have been **120 refugee physicians from Europe** granted Enabling Certificates by the College of Physicians and Surgeons of Ontario. These certificates allow the holders to write the examinations of the Medical Council of Canada, preparatory to earning a license to practise medicine in this country. According to the *Canadian Medical Association Journal*, 51 of the 73 physicians who have thus far written the Council examinations have been passed. Fifteen have failed to date, and seven have been rejected completely.

"The committee fully realizes the importance of granting Enabling Certificates only to those fully qualified, always having in mind its responsibility in protecting the public from any who may not be thoroughly trained and fully competent to provide medical care to patients who entrust their health and lives to them," states the report in the *C.M.A. Journal*.

The following is a section taken from a speech by Mr. Donald M. Fleming (Eglinton) in the House of Commons:—"There are today, in addition to the payments of \$40 a month under a means test, benefits provided in the form of **Medical and Dental assistance**. Some of us on the committee were much concerned—and we showed our concern in the debate last June on the Old Age Assistance Act, when parliament was legislating for a flat payment of \$40 a month which would replace the present joint dominion and provincial payments—that there might be a question as to the continuance of the provisions made for medical and dental care. I cannot speak for all the provinces, but I am most happy that in my own province of Ontario the provincial government has stepped into this field and has announced—in fact it has already implemented its announcement by legislation passed at the recent session of the legislature—that it will continue at its own expense to make medical and dental care available to all needy persons requiring it over 70 years of age, and in the group from 65 to 69 who receive the benefit of old age assistance under the means test. They too will receive the full benefit of medical and dental care. The scope of that medical and dental care is in the course of being enlarged. I know many of the provinces have their own financial difficulties; but in the interests of our senior citizens I do respectfully express the hope that it may be possible for all the provinces of Canada to make similar provision for needy elderly citizens."

Studies With Aureomycin:—In the *Northwestern University Bulletin of De-*

cember 17, 1951 Cosmo R. Castaldi, D.D.S., M.S.D., reports as follows on his experiments with aureomycin:

Fifty-six cases and thirty case reports of acute infectious gingivostomatitis were studied to determine the effect of systemic administration of aureomycin in the treatment of this infection. Twenty-one of the cases were all treated with aureomycin and used in a preliminary study. The remaining thirty-five patients were used in a controlled study in which twenty-two patients were treated with aureomycin and thirteen received placebo.

The results obtained were as follows:

1. The survey of thirty case reports revealed similar results to previously reported studies.

2. In a controlled study aureomycin when administered in doses of twenty-five milligrams per kilogram of body weight was effective in reducing the length of time for "Case Cleared" and the "Total Duration" of the infection.

3. Aureomycin was not able to reduce the duration of acute symptoms to any significant degree.

Career in Dentistry Film Presented to Association:— The American College of Dentists has presented to the American Dental Association a sound motion picture, in colour entitled "A Career in the Profession of Dentistry." Designed for use by members of the profession who are called upon to speak to high school and junior college students regarding a career in dentistry, the film is intended to provide incentive for highly qualified students to train for the profession, rather than to increase the total number of applicants.

Socialized medicine abroad depends on European economy was the subject of an address given by Dr. Austin Smith, Editor of the Journal of the American Medical Association given before the Executive Group of the Sterling Drug Inc. of New York. The following is condensed from this address.

The economic condition of the countries of Europe will determine whether socialization of medical care abroad will increase or decrease in the next few years.

The degree of the socialization of medical care varies country by country, and the response to it varies in accordance with the occupational interest and the economic status of the individuals. England has a greater degree of socialized medicine than any other country and its system, while it may be modified from time to time so that the people may pay

more for what they get, will not be cast out by the present Conservative government or by any other government so long as the country has or gets the money to pay for its huge cost.

Denmark has a type of socialized medical care which its citizens insist is voluntary. Supervision and much of the cost of the system is at the community level, rather than the Federal level, so that the people can more easily make changes in the light of experience. Most of the country's hospitals are general hospitals maintained at the community level, but there are a few private hospitals. The cost of medical care is borne by the community, the Federal government and insurance plans to which all citizens earning less than 15,000 kroner a year must subscribe while those earning more may also do so, and most of them do.

The medical care system in Norway is patterned after that of Denmark, but there is not the same freedom for the citizen or for the industries which serve the medical profession. Only about 1,600 medicinal preparations are permitted to be sold by the government's Advisory Committee. The government decides how many pharmacists may be permitted in any community, and strictly controls licensure. The country has a medical insurance plan that certainly is at least partly supervised by the government.

The Swedish government is committed to a socialistic medical program and the majority of Sweden's doctors, while unhappy about the program, are part of it. A small number of physicians remain in private practice, but only 50 per cent of their practice at best is private. Once his patient enters the door of any hospital in the country, the physician hands over control of the patient to the hospital authorities who are part of the medical care system of the government.

Switzerland's medical care system is somewhat like that of Denmark. Of the country's imported drugs, 80 per cent come from the United States, including all the antibiotics which the Swiss use. Vitamins and hormones, on the other hand, are locally manufactured. Its medical care plan is primarily voluntary, covering most illnesses, but a percentage of the cost of medical care must be paid by the individual to prevent abuse.

France has a medical care system under what Frenchmen call social security, which pays 80 per cent of the patient's bills. The individual, incidentally, pays the total bill for medical care, hospitalization or drugs, but gets an 80 per cent rebate from the social security organization.

In Germany, medical care is wholly in-

adequate. Pharmacies have no recent drugs on their shelves.

There has been much criticism in England of its socialized medicine, but many, perhaps most people, including its greatest critics, while not happy about it, are resigned to it. Modifications of the plan have already been made, with the people being required to pay for eye glasses and wigs. Those in business criticize the sys-

tem because of the long waits which confront the individual before he gets medical service. Those not so well off accept the system because, in their words, they get some medical care now where before they could not afford any. They do not appreciate the enormous burden on the country, but will support it so long as the country has the money, or can get the money from others, to pay for it.

IN MEMORIAM

Leroy Holmes of Toronto, aged 53, died on October 9.

He was graduated from the College of Dentistry of the Royal College of Dental Surgeons in 1922.

He served in the First Great War with the R.A.C. In the Second Great War he was overseas for five years with the Canadian Dental Corps, in No. 16 Company attached to the Air Force. After graduating in 1922 he practised in Montreal, moving to Toronto in 1925, where he practised until he enlisted in the C.D.C. in 1940.

Dr. Holmes was a member of High Park United Church. His chief hobby was flying; he was a member of the Toronto Flying Club. He was also a member of Psi Omega Fraternity.

He is survived by his widow, one son and one daughter.

Charles Milton Reeves of Tweed, Ontario, aged 75, died on July 30, 1951.

He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1899. He practised in Tweed and Belleville.

He was a member of the United Church, a member of Tweed Lodge A.F. & A.M., and of Tweed Lawn Bowling Club.

Dr. Reeves is survived by Miss E. Maude Reeves of Belleville and Mr. J. D. Reeves of Toronto.

William Stoddart Elliot of Atikokan, Ontario, died on September 17, 1951.

Dr. Elliott was graduated from the College of Dentistry of the Royal College of Dental Surgeons in 1914. He practised at Beardmore and Atikokan.

Cecil Moyer of Detroit, Michigan, died in November 1951. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons in 1923.

Frank Lethbridge Dayment of Toronto, died on December 2, 1951.

He was graduated from Philadelphia Dental College and practised in Buffalo for 15 years.

In 1912 he received his license from the Royal College of Dental Surgeons of Ontario and practised in Toronto until 1949, when he retired. He was an active member of the Toronto Academy of Dentistry and the Canada Lawn Bowling Club.

Dr. Dayment is survived by his widow and two sons.

M. Don Clawson, Past President of the College-at-Large of the International College of Dentists and Past President of Meharry Medical College died suddenly on December 17.

DIRECTORY

Canadian Dental Association Headquarters—234 St. George Street, Toronto, Ontario.

Matters relating to the publication of manuscripts or news items for the English Section of the Journal should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

Matters relating to the French Section of the Journal should be addressed to the French Editor, Dr. G. de Montigny, 400 est Blvd. St. Joseph, Montreal, P.Q.

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All changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. E. Halder, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

FEVRIER, 1952

No 2

Nouveau coiffage de pulpe avec l'Hydroxide de Calcium et le Sulfamide Septoplix (1)

par J. ARTHUR RENAUD, D.D.S., Montréal, professeur titulaire de pré-clinique de dentisterie opératoire, Université de Montréal

Le dentiste, en clientèle active, se trouve souvent en face de problèmes difficiles à résoudre. La difficulté, qui se présente lors d'une exposition de pulpe, exige, avant d'en trouver la solution, que l'on fasse un diagnostic qui nous permette de classer cette exposition comme dérivant d'une perforation dentinaire de la chambre pulpaire, accomplie durant le processus connu de la carie dentaire. Celui-ci peut être lent, ou plus ou moins spontané, mais généralement infectieux, à cause des micro-organismes qui fourmillent dans son milieu. A ce problème, il n'est pas d'autre solution, que celui de l'ablation partielle ou totale de la pulpe. Si, au contraire, l'exposition pulpaire a lieu mécaniquement, c'est-à-dire à la suite d'usage inconsidéré de curettes, de ciseaux, ou de fraises dans des conditions relativement propres,—ce qui donne à la digue d'abord, et aux rouleaux de coton ensuite, une très grande valeur, dans les cas de cavités profondes—le problème peut aujourd'hui se résoudre d'une façon bien différente. Des expériences entreprises à la faculté de Chirurgie Dentaire, après trois années de recherches, ont permis de mettre au point

une technique, qui donne de bons résultats.

Il est indéniable, comme l'ont dit plusieurs intéressés à ce sujet, dont quelques-uns méritent d'être nommés, entr' autres les dentistes Bernard, Marmasse et MacIer, tous des Européens, ainsi que les Docteurs Glass et Zander des Etats-Unis,—qu'une pulpe blessée dans des conditions aseptiques, peut se régénérer et guérir parfaitement, s'il reste un tant soit peu de circulation sanguine dans son organe.

Dans un premier article publié dans le Journal de l'Association Dentaire Canadienne, intitulé "Nouvelle médication servant à coiffer avec succès les pulpes blessées des dents permanentes," paru en septembre 1948, et dans un second article: "Conception actuelle des coiffages pulpaire," paru en janvier 1951,—j'exposais les différentes méthodes qu'employaient les dentistes européens et américains, comme traitement conservateur des pulpes exposées.

Je ne citerai, présentement, que trois des médicaments les plus employés par ceux dont vous connaissez les noms, et que je n'ai pas crains de me servir moi-même successivement comme traitement conservateur au cours de mes recherches.

(1) Ce nouveau coiffage de pulpe est le résultat de recherches entreprises depuis trois ans par l'auteur à la Faculté de chirurgie Dentaire de l'Université de Montréal.

Ce sont le Citronellol, les sulfamidés (Septoplis et Pénicilline), et l'Hydroxide de Calcium, avec des résultats plus que satisfaisants. Plus j'ai fait de ces traitements conservateurs de la vitalité pulpaire, plus j'ai voulu en faire et persister dans cette voie, parce que j'ai constaté que l'organe pulpaire avait des pouvoirs de régénération étonnants et partant de ce fait acquis, j'ai cherché à l'améliorer tout en le rendant simple et pratique.

Environ 200 cas de coiffages de pulpes ont été entrepris, soit avec le Citronellol ou le Septoplix, en l'année 1948, à la clinique de la Faculté de Chirurgie Dentaire avec comme résultat un pourcentage de 65% de succès.

A peu près 475 autres cas de coiffages de pulpe furent aussi faits en la même Faculté, depuis trois ans, (1949-50-51) utilisant cette fois d'une combinaison de médicaments tels que: le Septoplix et l'Hydroxide de Calcium. Un résultat de beaucoup supérieur au précédent, que je n'ose affirmer pour le moment, parce qu'il n'est qu'apparent; je veux dire par là qu'il n'est pas encore contrôlé par des coupes histologiques, m'oblige à taire momentanément son pourcentage de succès.

A tout événement, j'expose aujourd'hui cette nouvelle technique développée, améliorée et simplifiée durant les quatre années d'expériences en cours sur les coiffages de pulpes que j'eus le plaisir de faire moi-même.

J'apprécie et admire toutes les interventions chirurgicales et pulpaires accomplies par les endodontistes lorsqu'elles sont justifiées, urgentes ou indispensables à la santé du patient, mais par contre, je condamne la dépulpation en masse entreprise par certains, de toutes dents, furent-elles superficiellement atteintes de carie ou légèrement touchées, blessées par des instruments quelconques. Je ne crains pas de dire que ceux d'entre eux qui pratiquent ce genre d'intervention, sans égard aux possibilités très grandes de guérison maintenant établies, doivent, d'après mon humble avis, être rangés dans la catégorie de ceux qui ignorent totalement les pouvoirs de récupération que possède l'organe pulpaire vital.

Technique d'un coiffage de pulpe fait avec le CA (OH)₂ et Septoplix

1. Examen clinique et radiographique.
2. Mise en place de la digue de façon bien étanche, ou de rouleaux de coton.
3. Ablation totale de la carie restante, tout en provoquant une petite hémorragie;
4. Lavage de la cavité et de la pulpe dénudée, à l'eau oxygénée boratée;
5. Aseptie de la cavité avec l'alcool à 50% (2);
6. Assèchement de la cavité à l'air chaud. La cavité est alors prête à recevoir le coiffage.

Médicaments et liquide employés (3)

- a) C.A.(OH)₂ —1z)
 - b) Septoplix —1z)
- bien mélangés ensemble de façon à obtenir un tout homogène que l'on renferme dans une seule bouteille.

- c) Eau distillée—q.s. pour les poudres.

Sig. Une goutte d'eau suffit pour préparer avec la poudre, une pâte plutôt épaisse.

7: Son application:

Avec une spatule appropriée, déposer une quantité suffisante de cette pâte sur la brèche pulpaire, puis presser au moyen d'une boulette de coton séchée et stérilisée tenue par la précelle la pâte de façon à ce que celle-ci vienne en contact avec la pulpe, et enfin remplir la cavité d'un ciment temporaire à l'oxide de zinc-eugénol ou Dentalone.

Laisser ce pansement sept jours en place.

8. Revoir le patient pour enlever le tout avec beaucoup de précaution aux approches du coiffage.

9. Constater s'il y a calcification au moyen d'un verre grossissant. Ce qui se

(2) Une boulette de coton hydrophile imbibée d'alcool est flambée et éteinte avant que tout l'alcool soit brûlé. Cette façon de procéder diminue la douleur causée par un changement de température.

(3) Ces médicaments doivent être tenus dans une bouteille avec bouchon d'émeri et fermée après chaque emploi.

a) L'hydroxide de calcium a pour but d'escarifier les tissus avec lesquels il est mis en contact, par conséquent de les mortifier. Ceux-ci deviennent nécrosés et sans danger pour son voisinage du fait de l'addition du Sulfamidé Septoplix.

b) Le sulfamidé "Septoplix" a pour but de garder l'aseptie autour de la brèche pulpaire et d'empêcher la prolifération des bactéries qui s'y trouvaient encore, favorisant ainsi la guérison de la pulpe par l'apport d'ions de calcium, déposés par les odontoblastes autour de la nécrose aseptique, pour former ensemble une dentine secondaire qui s'épaissit avec le temps et fermer hermétiquement la brèche pulpaire.

c) L'eau distillée est employée de préférence à l'eau du robinet parce que débarrassée de toutes ses impuretés.

voit par une zone décolorée (jaune, brune ou noire) celle-ci étant de la nécrose provenant des cellules sanguines pulpaire mortifiées par le contact du $\text{CA}(\text{OH})_2$ avec la pulpe. Cette nécrose n'a pas besoin d'être enlevée parce qu'elle est aseptique. Le coiffage, s'il est solidement fixé et adhérent sur la brèche pulpaire peut aussi rester en place. Au-dessous de la nécrose se forme une calcification qui devient de la dentine secondaire, laquelle s'épaissit avec le temps.

Une douleur ressentie temporairement ne peut être considérée comme grave pour la pulpe; le contraire demanderait un traitement d'endodontie.

Les questions posées au patient à ce sujet peuvent soit nous rassurer ou nous inquiéter et nous guider pour agir en conséquence. Si rien d'inquiétant ne s'est

passé après une semaine, c'est-à-dire que la pulpe n'a manifesté aucun trouble, l'on peut décider d'obturer la dent, parce que sa pulpe est en voie de guérison. Un vernis protecteur doit être déposé sur les parois dentinaires de la cavité et le coiffage avant de faire la reconstitution nécessaire en ciment oxyphosphate de zinc.

Il est bien entendu que des radiographies intra-orales doivent être prises pour bien établir le diagnostic. Dans le cas de conditions pathologiques apparentes autour des racines et des tissus péri-apicaux, il est déconseillé d'entreprendre ce traitement conservateur de la pulpe.

NOTES: Des statistiques découlant de centaines de cas faits par l'auteur à la clinique de dentisterie opératoire de la Faculté Dentaire de l'Université de Montréal, seront publiés prochainement avec preuves histologiques à l'appui, dans cette revue. Apparemment tout laisse prévoir des résultats prometteurs.

3221 avenue De Sérigny

COUPURES DE JOURNAUX

De *France-Soir* (21 novembre 1951.)

Les potins de la commère

Un dentiste astucieux (et psychologue) a placé sur le bras de son fauteuil un système qui permet au patient d'arrêter à son gré le travail si agaçant de la roulette. Il paraît que très peu de gens s'en servent.

Du *Petit Echo de la Mode* (2 décembre 1951):

Franco MARTINEZ HERRERA, vétéran des guerres de Cuba et des Philippines, a constaté avec surprise, à quatre-vingt-un ans, la percée de deux incisives à sa mâchoire supérieure. Comment la Stomatologie appellera-t-elle ces dents de remplacement qui ne sont ni de lait, ni de sagesse?

De *Aux Ecoutes* (30 novembre 1951):

Le Prof. FRANK WILKINSON, Directeur du *London's Eastman Dental Hospital*, aurait découvert en Australie une pâte qui, placée sur une carie dentaire, l'assainit en trois ou quatre jours, sans douleur. Il s'agirait d'un fruit nommé paw-paw, couleur d'orange. Depuis vingt-deux ans, le professeur a mis au point cette substance nouvelle qui va, paraît-il, être désormais d'un usage courant.

L'information Dentaire, 27 décembre 1951

Allergie à l'aspirine

C. H. A. WALTON et H. W. BOTTOMLEY, Winnipeg, Man.

Depuis longtemps, on a observé et rapporté des cas d'allergie à divers médicaments ordinaires. Il existe un grand nombre de réactions allergiques, entre autres l'urticaire, l'angioœdème, les dermatites médicamenteuses, les troubles gastro-intestinaux, les hyarthroses, l'agranulocytose, la rhinite et l'asthme. Parmi les médicaments qui peuvent provoquer des réactions allergiques graves, mentionnons l'arsphénamine, l'or, l'amidopyrine, les sulfamidés, le cincophène, le phénolphthaléine, les barbiturates, la cocaïne, la pontocaïne, la novocaïne, la quinine et l'aspirine.

Déjà en 1919, Cooke soulignait chez quelques malades des réactions allergiques typiques provoquées par maints remèdes, manifestations qu'il importait de ne pas confondre avec les réactions exagérées à une drogue, c'est-à-dire l'idiosyncrasie. Dans l'allergie médicamenteuse, des quantités infinitésimales déclenchent des réactions violentes, voire dramatiques, qui outrepassent les effets pharmacologiques normaux de la drogue, ressemblant ainsi à ces manifestations que provoquent des substances qui n'ont aucune relation avec elle, à savoir des aliments, des poussières, etc. Aussi importante que puisse être la vaste question des allergies médicamenteuses, une seule d'entre elles fera l'objet de cette étude, celle de l'aspirine, qui est l'une des plus fréquentes et vraisemblablement aussi l'une des plus graves.

L'aspirine (acide acétylsalicylique) est sans contredit le médicament qui est le plus universellement employé, et cependant peu fréquents sont les cas de sensibilité à cette drogue, mais il importe au médecin d'en être bien averti à cause du caractère remarquable et souvent dangereux des accidents qu'elle provoque. Il arrive souvent au patient d'en prendre sans le savoir, camouflée qu'elle est sous de nombreuses marques de commerce; le médecin lui-même la prescrira sous forme de capsule à l'insu de son malade.

Le sujet en question abonde dans la littérature médicale. De même que la rhinite, l'urticaire et l'angio-œdème sont des manifestations communes, ainsi est l'asthme qui prend souvent une forme grave. Cooke, Prickman et Buchstein, Benson, Vaughn, Feinberg, Unger et bien d'autres encore ont publié des observations de morts subites dues à l'asthme et causées par l'aspirine. Ils soulignèrent, toujours chez des adultes plutôt avancés en âge, et deux fois plus fréquemment chez la femme que chez l'homme, une tendance à la sensibilité à l'aspirine dans les cas d'asthme les plus graves et les plus rebelles, souvent avec des épreuves cutanées négatives. Il a été estimé de 2 à 10% la proportion d'asthmatiques qui étaient sensibles à l'aspirine, et cette particularité comporte souvent un fâcheux pronostic.

Landsteiner explique ainsi le mécanisme de la sensibilité à l'aspirine et à d'autres drogues courantes, et c'est son avis, sur ce point encore obscur, qui rallie la plupart des suffrages. La simple substance chimique n'est pas un allergène *per se*, mais elle se combinerait avec des protéines de l'organisme, des globulines du sang peut-être, et c'est cette combinaison qui provoquerait des réactions allergiques.

Ni le médecin, ni le profane, croyons-nous par expérience, ne sont pas très au courant de ce phénomène d'allergie médicamenteuse, notamment celle de l'aspirine, la plus importante et la plus commune de toutes; il y a là un problème médical d'envergure qui pourrait être éclairé à la lueur de quelques-unes de nos propres expériences.

Il est plus facile de se rendre compte de la sensibilité à l'aspirine ou à toute autre drogue sur des malades hospitalisés parce qu'on prend note des médicaments qu'ils prennent ainsi que des changements soudains qu'ils produisent. En visite au bureau du médecin, seuls les patients les plus éveillés et mieux inten-

tionnés le mettront au courant de tous les remèdes qu'ils prennent, en omettant cependant pour la plupart de faire mention d'une drogue aussi banale que l'aspirine, même s'ils prennent rigoureusement note de leur alimentation ou de leurs symptômes. Le médecin se devra donc de toute nécessité de faire une enquête fouillée sur les médicaments que prend son malade, en plus de bien connaître la teneur en aspirine d'un très grand nombre de spécialités pharmaceutiques et de remèdes brevetés.

L'histoire dramatique suivante souligne bien la difficulté qu'il peut y avoir d'obtenir de tels renseignements. Une asthmatique âgée de 41 ans, qui vint me consulter à mon cabinet, me répondit en interrogatoire qu'elle n'avait jamais ressenti de réactions médicamenteuses inusitées, ajoutant qu'elle avait l'habitude de prendre des comprimés "Frosst 217" pour ses maux de tête. Son asthme empirant, elle fut admise à l'hôpital. La thérapie habituelle en ces cas aidant, son état s'améliora peu à peu, ses symptômes s'amendèrent en quelques jours, avec disparition des signes pulmonaires. Au cours d'une de mes visites, un matin, elle se plaignit de céphalée et réclama deux comprimés de "Frosst 217". J'acquiesçai et quittai les lieux. A peine quelques minutes après, je fus mandé d'urgence à sa salle et la trouvai en état de collapsus. Fortement cyanosée, le pouls filiforme, son état paraissait désespéré; à l'auscultation, quelques râles sibilants, rien d'autre. Après ranimation vigoureuse à l'oxygène, l'adrénaline, la coramine et l'aminophylline, la malade reprit conscience, la tension artérielle devint normale et les mouvements respiratoires reprirent avec peu de dyspnée ou de cyanose.

Cette femme n'avait jamais éprouvé une réaction aussi grave auparavant, mais un interrogatoire rétrospectif révéla que son cycle normal consistait en céphalée, aspirine, asthme, adrénaline, céphalée. Plus tard on apprit qu'elle était sensibilisée aux aliments et aux poussières, en plus de souffrir d'un polype nasal et d'une sinusite confirmée. Elle mourut dans l'année qui suivit sa sortie de l'hôpital, et,

comme elle habitait une ville éloignée, on n'en sut pas plus long sur son cas.

L'interne et les infirmières alors en devoir dans sa salle n'oublièrent pas de sitôt cette tragique et effrayante affaire et depuis ce temps n'osent plus donner de médicaments à leurs malades asthmatiques à l'insu du médecin de service et sans son autorisation écrite. C'est à cette condition seule qu'ils éviteront des incidents regrettables, tellement courante est cette pratique, chez le personnel médical étudiant, de donner des analgésiques communs comme l'aspirine et ses composés parce qu'ils les croient inoffensifs.

Nous avons passé en revue 830 cas successifs d'asthme vus du 1 janvier 1946 au 30 avril 1950. De ce nombre, il s'est trouvé 22 cas de sensibilité nette à l'aspirine, soit une proportion de 2.7%, comparable aux taux rapportés variant de 2 à 10%. Etant donné que plus que le quart de nos 830 cas d'asthme comprenait des enfants dont pas un seul n'était allergique à l'aspirine, le taux de sensibilité à cette drogue dans notre groupe d'adultes se rapproche davantage de 3.5%. Dans ce groupe, on compte quinze femmes; ici encore la proportion de deux femmes pour un homme s'affirme.

Les âges de ces malades lors de leur premier examen étaient comme suit:

Age	Cas
20 à 29	4
30 à 39	4
40 à 49	6
50 à 59	7
60	1
	22

Dans 12 cas, soit une proportion de 50%, on trouva des antécédents nets d'hérédité allergique.

Nous tentâmes de fixer de la façon suivante le degré de gravité de l'asthme chez nos allergiques à l'aspirine:

- Degré I 3 cas (bénins)
- Degré II 8 cas (amendés par de simples médicaments)
- Degré III 6 cas (nécessitant de l'adrénaline, etc.)
- Degré IV 5 cas (très graves)

On est communément d'avis que les malades allergiques à l'aspirine sont

beaucoup plus gravement atteints que les autres. Seuls la moitié de nos cas, ceux des degrés III et IV, peuvent être classés comme graves. Ces onze malades, dont neuf femmes, étaient âgés de 27 à 64 ans. Dans la série entière de 830 cas, une proportion de 13% seulement était gravement malade ou dans les degrés III et IV.

Tous les cinq patients du degré V moururent au cours des quatre années que dura l'étude, c'est-à-dire 22.7% de nos cas allergiques à l'aspirine. Trois d'entre eux furent examinés à l'autopsie et montrèrent les signes caractéristiques de la mort par asthme bronchique.

En nous basant sur notre expérience et celle des autres, nous croyons devoir affirmer que l'allergie à l'aspirine assombrit considérablement le pronostic. Cependant la moitié de nos cas d'aspirine étaient bénins, et ils n'ont guère changé au cours de ces quatre années.

On est d'accord pour dire que les cas d'allergie à l'aspirine, sauf ceux qui souffrent aussi de la fièvre des foins, ne réagissent guère aux tests cutanés de routine. Ce fut le cas pour cinq de notre groupe de 22 malades. Parmi les autres 17, 12 réagissaient au pollen, 13 aux spores de moisissures, 11 à la poussière des maisons, 12 au poil d'animaux et 5 aux plumes. Tous ces tests furent pratiqués par voie dermique. En regard de 17 cas positifs, 12 seulement nous permirent de porter un diagnostic satisfaisant.

Parce qu'il n'est pas facile, en l'absence de réactions caractéristiques, de déceler les cas réels d'allergie à l'aspirine, il est fort probable qu'il nous en soit échappé un bon nombre de notre série entière. Notre expérience, confirmée par celle d'autres chercheurs, nous a enseigné que cette allergie à l'aspirine peut être légère et passer inaperçue jusqu'au moment où sa gravité s'affirme ou qu'elle soit l'effet du hasard. Ainsi, Mme H., qui souffrait d'arthrite rhumatoïde, n'avait jamais jusqu'ici présenté d'allergie à la drogue. Après avoir pris une capsule contenant de l'aspirine, elle vit son asthme s'exacerber de sérieuse façon chaque fois, et refusa désormais d'en prendre après une troisième crise. Une autre femme, Mme

W. ne se sut allergique qu'après avoir été hospitalisée pour une intervention de petite chirurgie, et elle fit sa plus grave crise d'asthme quelques minutes à peine après avoir absorbé de l'aspirine comme analgésique.

En outre de manifestations asthmatiques, 3 malades eurent des crises d'urticaire et l'un d'eux, une rhinite allergique. Trois autres cas d'aspirine firent de l'asthme après ingestion de benadryl, de pyribenzamine et d'antistine respectivement. Un autre malade, Mme G., à qui l'on donna du carbital (Parke-Davis), contracta un angio-œdème du palais, du larynx et du pharynx, mais des injections répétées d'épinéphrine la ramenèrent à la santé.

Parce qu'il est habituellement négatif et parfois même dangereux, nous ne tentâmes pas de pratiquer un test cutané avec l'aspirine ou ses composés.

Discussion

L'aspirine est le médicament le plus en usage qui provoque de graves réactions allergiques. L'asthme en est le symptôme le plus fréquent, encore que l'urticaire, l'angio-œdème et la rhinite soient assez communs. Dans une série de 830 asthmatiques nous découvrîmes 22 cas d'allergie nette à l'aspirine. Des crises d'asthme furent déclanchées chez tous ces malades avec de très petites doses d'aspirine. Plusieurs d'entre eux présentèrent également de l'urticaire, de angio-œdème et de la rhinite, et parmi ceux-là trois se montrèrent allergiques aux produits antihistaminiques. Tous ces patients étaient des adultes dont les âges variaient de 27 à 64 ans, dont la moitié firent une crise grave d'asthme. De ces 22 cas, cinq moururent au cours des quatre années qu'ils furent sous observation. Les réactions cliniques à l'aspirine sont habituellement violentes et rapides.

Il suffit de si petites quantités de la drogue pour provoquer des réactions formidables que l'on est en droit de se demander si ces cas rebelles fréquents en pratique et dont l'étiologie nous échappe ne sont pas également allergiques à quelque autre substance chimique que l'on trouverait dans le régime alimentaire.

quotidien. Tel est l'avis de Feinberg. L'aspirine ne donnera pas un test cutané positif, ni peut-être cette autre substance chimique non plus, et il n'y a rien d'étonnant qu'il n'en soit pas fait mention au moment du diagnostic. Jusqu'ici nous ne croyons que la suggestion de Feinberg ait fait beaucoup de chemin.

L'allergie à l'aspirine est très dangereuse, aussi faut-il toujours la rechercher dans l'histoire d'un cas. Cooke a souligné l'inutilité et le danger des tests cutanés pour la déceler. On ne devrait donc jamais prescrire l'aspirine s'il y avait raison de penser que la malade y est hypersensible.

L'allergie à l'aspirine survient généralement dans les cas d'asthme les plus graves, elle a donc une valeur pronostique certaine. L'emploi du médicament peut être fatal. C'est un fait depuis longtemps

acquis, cependant, que l'aspirine est utile dans certains cas d'asthme, et des cliniciens réputés tels que Duke en recommandent fortement l'usage. Il n'y a aucun doute que nombre d'asthmatiques s'en sont bien trouvés, et c'est mon avis que certains remèdes brevetés contre l'asthme contiennent l'aspirine.

"Que le Seigneur me protège contre mes amis;
Quant à mes ennemis, je m'en charge."

(Fontenelle)

Résumé

Vingt-deux cas d'allergie à l'aspirine furent mis à jour dans une série de 830 cas successifs d'asthme. Cinq d'entre eux moururent en moins d'un an. Tous les malades étaient des adultes, parmi lesquels on comptait quinze femmes.

Canad. M.A.J.
Mar. 1951, vol. 64

Statistiques au sujet du rendement pécuniaire de la profession dentaire

Tous les ans, le Ministère du Revenu National publie des chiffres sous une rubrique appelée "Statistique des Impôts." Ces tableaux représentent les montants payés en impôts au cours des deux années précédant celle de la publication. Le volume de 1951 donne les chiffres pour l'année 1949. Un tableau, qui suscite beaucoup d'intérêt, est celui qui montre les moyennes des impôts payés par différentes classes professionnelles, par ordre

progressif. Les sept premières professions sont groupées dans l'ordre suivant:

—La moyenne du revenu du dentiste canadien en 1949 est plus forte que celle des années précédentes. Voici les chiffres en comparaison:

1946	—	5,289
1947	—	5,713
1948	—	5,395
1949	—	5,748

professions (classées en ordre de la moyenne du revenu)	Nombre	Revenu			Impôt		
		Moyenne du revenu	Revenu total (en millions)	Pourcen- tage du grand total	Moyenne d'impôt	Impôt total (en millions)	Pourcen- tage du grand total
ingénieurs et architectes...	1,210	10,428	12.6	0.20	\$2,460	3.0	0.59
avocats...	3,870	9,533	36.9	0.57	2,019	7.8	1.56
médecins et chirurgiens...	8,010	9,009	72.2	1.12	1,660	13.3	2.65
dentistes...	2,920	5,748	16.8	0.26	681	2.0	0.40
courtiers...	43,120	5,719	246.6	3.83	1,013	43.7	8.72
forestiers...	650	5,295	3.4	0.05	728	0.5	0.09
associés d'affaires...	42,250	5,276	222.9	3.47	755	31.9	6.37
propriétaires d'entreprises comptant des employés...	73,590	5,207	383.2	5.96	721	53.1	10.60

Cas de calcification partielle du canal radiculaire à la suite d'un traumatisme

par VINCENT TREMBLAY, D.D.S., Montréal

On rencontre parfois des calcifications dans la chambre pulpaire ou dans le canal radiculaire d'une dent. Ces calcifications prennent des formes très variées, allant de la calcification totale du canal à de petits nodules libres ou adhérent à l'intérieur de la chambre pulpaire ou de la partie radiculaire du canal. Voici un cas plutôt rare de calcification partielle du canal radiculaire à la suite d'un traumatisme.

Histoire du cas

Il y a plusieurs années, le patient se rappelle d'avoir reçu un coup de coude sur la couronne d'une centrale, en jouant au hockey. A la suite de ce choc, la dent fut sensible au chaud et au froid pour quelques jours; le douleur disparut complètement, ne laissant qu'une vague sensation de la conscience de la présence de la

dent. La couronne se décolora ensuite et prit un aspect gris foncé. Au moment où le patient se présente pour le traitement, la dent est négative au chaud et au froid, et, chose curieuse, elle enregistre 10 sur le "vitalomètre" électrique Burton alors que la dent adjacente normale nous donne 3. Au point de vue radiographique, la membrane périodentaire est normale, mais on a un canal élargi et au milieu duquel on remarque un bloc de calcification: (fig. No 1). Comme histoire médicale, le patient est en très bonne santé.

Traitement

17-9-51: Isolation de la dent et ouverture du canal sans anesthésie: on explore avec la lime No 1, mais on butte sur la calcification; après un peu d'effort, on réussit à faire traverser la lime (fig. No 2). Après avoir dépassé la calcification,



FIG. No 1—Centrale supérieure gauche: membrane périodentaire normale. Calcification dans le canal radiculaire à la partie médiane. Canal excessivement large. Distortion des dents adjacentes à cause de la profondeur de la voûte palatine.



FIG. No 2—On a réussi avec une lime No 1, comme fil à diagnostic, à dépasser la calcification et même l'apex. On en déduit la longueur du bords incisif à l'apex, qui est de 19.5 millimètres.



FIG. No 3—Obturation du canal avec une pointe de gutta-percha. On a vidé la chambre pulpaire en-dessous du collet de la dent pour la technique de blanchiment de la couronne.

le patient ressent un peu de douleur près de l'apex. A l'aide d'une radiographie, on mesure le canal à 19.5 millimètres. On prend une culture, place un pansement au paramonochlorophénol et on scelle hermétiquement.

La culture nous revient positive et, après analyse bactériologique, on trouve du streptococcus microaerophilus.

24-9-51: On ouvre le canal, et on prend une culture. Avec un "Peeso Reamer" rotatif, on meule la calcification

et on ouvre ensuite le canal jusqu'à la lime No. 6 et à 19.5 millimètres.

Le résultat de la culture nous revient négatif.

1-10-51: On obture le canal avec une pointe de gutta-percha et du "Kerr Sealer": (fig. No 3).

15-10-51: On vide la chambre pulpaire jusqu'à un millimètre au-dessous du collet de la dent et on fait une séance de blanchiment au Pyrozone. Dans les 48 heures qui suivent, la couronne redevient exactement de la couleur des dents adjacentes et le patient se déclare très satisfait des résultats.

Conclusions

1. Il semble qu'un choc sur une dent amène parfois une dégénérescence pulpaire et une décoloration de la couronne.
2. Il semble qu'il restait dans la dent un peu de sensibilité au-delà de la calcification.
3. Il semble y avoir une relation entre la calcification médiane et la largeur du canal radiculaire.
4. Comme il n'y avait aucune issue dans la couronne, il semble que la présence du streptococcus microaerophilus s'explique par pénétration endogène.
5. Il se peut que la calcification médiane soit le vestige de la suture ou de la guérison d'une fracture de la racine avec pulpe vivante.

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NOUVELLES DE L'ASSOCIATION

Délibérations de 1951

Le texte anglais des Délibérations de l'A.D.C. pour l'année 1951 a été expédié aux membres. La version française le sera prochainement. Ces délibérations permettent aux membres de se rendre compte des activités de l'Association durant l'année courante. La publication des Délibérations est surtout faite pour renseigner les membres de l'A.D.C.

Memorandum au sujet de l'Impôt sur le Revenu

L'A.D.C. est à préparer, en collaboration avec le Ministère du Revenu National, un memorandum au sujet des rapports d'impôt des dentistes du Canada. Les règlements d'impôt ont subi certains amendements depuis l'année dernière. Ce memorandum a été expédié au début de janvier.

Livraison spéciale du Journal, à l'occasion du cinquantième anniversaire de la fondation de l'A.D.C.

On est à préparer un numéro spécial du Journal pour célébrer les noces d'or de l'Association. Cette livraison paraîtra le 1er juin et contiendra des articles spécialement écrits sur le progrès de la dentisterie au Canada. Ce numéro sera plus volumineux qu'à l'ordinaire et renfermera des communiqués provenant de toutes les parties du pays.

Nouveaux risques couverts par les assurances d'automobile

On annonce qu'une nouvelle assurance d'automobile est offerte à partir du 1er janvier 1952 dans tout le Canada, les provinces de Québec et de Terre-Neuve exceptées. Cette police couvre un plus grand nombre de risques et donne la protection la plus complète jamais réalisée, en assurance-automobile au pays.

Un des items les plus intéressants de cette police consiste dans la protection accordée à quiconque (excepté un employé de garage qui répare ou conduit la voiture) est blessé pendant qu'il est dans l'automobile ou qui y monte ou en descend. La compagnie d'assurance paiera les déboursés occasionnés par ces accidents, au point de vue médical, chirurgical, dentaire, ambulancier, hospitalier, gardes-malades, funéraire.

Renseignements sur la Colombie britannique

Les dentistes qui assisteront au Congrès de Vancouver, en juin prochain, auront sans doute le désir de visiter les environs de la côte orientale, après la réunion. Cette province est bien attrayante à cette époque de l'année et des voyages splendides peuvent y être organisés; de plus, on peut y louer des chalets à des endroits enchanteurs pour y passer une vacance. On peut obtenir des renseignements en s'adressant au British Columbia Government, Travel Bureau, Victoria, B.C.

Une Société rend hommage à l'ancien président, le Dr Lowery

À sa dernière assemblée régulière, la West Toronto Dental Society a rendu hommage au Dr Lowery, ancien président immédiat de l'A.D.C., en lui offrant un sac de voyage. Le président actuel de la Société, le Dr J. Methven, a souligné le fait que le Dr Lowery fut un des fondateurs de cette Société et qu'il occupa divers postes à la direction de la dentisterie canadienne durant plusieurs années, pour finalement devenir président de l'Association Dentaire Canadienne. Il énuméra les réalisations accomplies au sein de la profession à l'instigation du Dr Lowery et dit la fierté de sa Société de compter le Dr Lowery comme un de ses membres.

Nouvelles des Sociétés

Société Dentaire de Montréal

Assemblée générale mensuelle, mardi le 18 décembre 1951, à 8.30 heures, au Salon F de l'Hôtel Windsor.

Le Dr Gaston Lajoie présente un rapport du parti d'huîtres. Il est fait mention de la nomination du Dr Gérard de Montigny à la vice-présidence du Comité de Nomenclature de la Fédération Internationale. Un vote de félicitations lui est adressé. Le Dr Louis Lépine présente le conférencier, le Dr André Mackay, M.D., qui traite des "Complications pulmonaires attribuables à des accidents d'origine dentaire." Des abcès pulmonaires peuvent être causés par des avulsions dentaires massives, sous anesthésie générale. Le Dr Mackay cite le cas d'un patient apparemment atteint de tuberculose à la suite de deux pneumonies. Ce patient avait subi des extractions de mauvaises dents, et l'aspiration de pus dans ses bronches avait provoqué un abcès pulmonaire, avec tous les symptômes de la pneumonie. Le patient fut dirigé au sanatorium. On découvrit un abcès streptococcique, qui motiva l'ablation chirurgicale du lobe supérieur du poumon droit. 20% des cas d'abcès pulmonaire ont, à leur origine, une histoire d'extractions multiples faites sans précaution. La voie d'entrée des bactéries est très souvent aérienne. L'anesthésie générale abolit les réflexes défenseurs de l'arbre bronchique. Quels sont les symptômes de l'abcès pulmonaire?

Le patient se sent faible, grippé, courbaturé, fait de la température. Il souffre d'un point au côté, comme dans la pneumonie. Ensuite, apparaissent des vomissements de pus d'odeur repoussante. Il faut faire le diagnostic différentiel et éliminer les autres affections du poumon. Le traitement de l'abcès pulmonaire comporte deux aspects: l'un médical: drainage de l'abcès, vitaminothérapie, diète appropriée et emploi de la chlorophylle contre les odeurs. L'autre est chirurgical et il faut y recourir dans les cas de récurrence. Avant l'ère des antibiotiques, le pronostic de l'abcès pulmonaire était de 35% de guérison; depuis les antibiotiques, 60% sont guéris. Le Dr Mackay illustre sa conférence de nombreux transparents de radiographies pulmonaires. Il nous montre un cas de dent logée dans le poumon à la suite d'extraction. Tout ceci nous donne une idée des complications parfois terribles des avulsions dentaires. Pour prévenir ces accidents, une prophylaxie locale et générale du patient s'impose. L'extraction de quelques dents seulement, à la fois, sous anesthésie intra-trachéale ou locale est préférable et permet de prévenir ces abcès redoutables du poumon. Le Dr Roger Charette remercie chaleureusement le conférencier.

À la fin de l'assemblée, un coquetel fut servi pour marquer la dernière réunion de la Société pour l'an 1951.



Les services dentaires en Scandinavie et en Angleterre

Grâce à une bourse de l'O.M.S., le Dr C. L. *Sebelius*, Director, Dental Hygiene Service, Tennessee Department of Public Health, à Nashville, Tenn. (Etats-Unis d'Amérique), a pu se rendre dans les pays scandinaves et en Grande-Bretagne, où il a observé le fonctionnement des services de soins dentaires, notamment des services destinés aux enfants. On trouvera ci-dessous le résumé de certaines remarques du Dr *Sebelius*.

Norvège

La ville d'Oslo consacre environ 1% du revenu des impôts municipaux à l'exécution d'un programme d'hygiène dentaire destiné aux enfants. Grâce aux services scolaires de soins dentaires, organisés dès 1910, 97% des écoliers reçoivent des soins gratuits. Dans le "Grand Oslo", presque toutes les écoles possèdent une clinique dentaire—il en existe ainsi une cinquantaine. D'autre part, des services dentaires généraux, mis sur pied en 1938, s'adressent aux enfants de 3 à 7 ans et aux adolescents de 14 à 18 ans. Le coût annuel, pour les parents, est de 5 couronnes (0,70 dollar) par enfant d'âge préscolaire, et de 10 couronnes (1,40 dollar) par adolescent (de 14 à 18 ans). Les jeunes gens de 18 à 21 ans bénéficient également de soins dentaires partiellement payés par la municipalité à l'aide des excédents des caisses d'assurance-maladie; le traitement est donné par des praticiens privés, et un certain pourcentage des frais est supporté par la caisse d'assurance-maladie.

Dans le reste de la Norvège, les subventions du gouvernement pour les services de soins dentaires s'élèvent à 25% dans les zones rurales et à 12,5% dans les centres urbains.

Les recherches et l'enseignement de l'hygiène dentaire sont loin d'être négligés en Norvège. C'est ainsi que, depuis 1918, il existe une association pour la préservation des dents, qui s'efforce de propager les principes d'hygiène dentaire; d'autre part, en mars 1951, un

nouvel institut norvégien de recherches dentaires a été inauguré à Oslo. Les soins à donner aux enfants occupent une place importante dans le programme d'études dentaires.

Suède

Le service public d'hygiène dentaire fonctionne, en Suède, depuis 1939. L'Etat fournit des fonds pour équiper des cliniques et accorde des subventions proportionnelles au nombre d'enfants traités. Les subventions sont plus importantes dans les zones rurales que dans les villes. Le service dentaire scolaire de Stockholm dispose de 50 cliniques dont les services sont assurés par 90 dentistes.

La Suède a organisé un programme systématique de formation des infirmières dentaires et des mécaniciens dentistes. L'infirmière accomplit un stage de quatre mois au moins avant d'être admise à l'école, puis elle suit des cours pendant six mois. Elle ne reçoit son diplôme qu'après avoir passé neuf mois dans une clinique ou dans un cabinet privé. Il existe ainsi trois écoles d'infirmières dentaires. Quant aux mécaniciens dentistes, leur formation est également bien organisée. Après un stage de trois ans et demi, l'étudiant suit, pendant dix mois, les cours d'une école technique, puis il "pratique" pendant un an avant d'obtenir son diplôme (ou sa licence). Il existe deux écoles de mécaniciens dentistes où sont inscrits environ 24 étudiants dans chaque classe.

A Vipeholm, un programme de recherches est en cours depuis 1947: l'étude porte sur les relations entre la nutrition et les maladies des dents. Les résultats de ces travaux seront vraisemblablement publiés d'ici peu.

Danemark

Au Danemark, on considère que l'institution des services dentaires scolaires constitue l'une des améliorations sociales les plus importantes qui aient été apportées dans le pays. Quatre-vingt-trois des

85 villes du Danemark et 385 des 1300 paroisses ont organisé des soins dentaires pour les écoliers. Les dentistes des écoles sont des fonctionnaires; quant aux dentistes privés, ils sont rémunérés suivant le nombre d'enfants traités. Environ 80% des écoliers bénéficient maintenant de soins dentaires; à Copenhague, où le nombre des enfants qui fréquentent l'école atteint 80.000, 96% des écoliers sont soignés par les services scolaires.

Lorsqu'un nouveau-né présente une fissure du palais ou un bec-de-lièvre, cette malformation est notée sur son bulletin de naissance, et l'enfant est ultérieurement soigné à titre gratuit. Une équipe constituée par un spécialiste des troubles de la parole, un chirurgien, un oto-rhino-laryngologiste et un dentiste détermine les soins à donner aux enfants. On opère les becs-de-lièvre lorsque l'enfant a deux mois, et les fissures palatines lorsqu'il atteint deux ans. L'année dernière, on a constaté environ 150 cas nouveaux, et l'on a effectué quelque 270 opérations.

Au Danemark, une grande partie des soins dentaires sont couverts par un régime d'assurance; les compagnies versent environ la moitié des honoraires des dentistes, tandis que les assurés paient le reste.

Le Dr *Sebelius* a été vivement impressionné par l'organisation de l'enseignement à l'école dentaire de Copen-

hague et par les méthodes de sélection des étudiants. Environ 300 candidats sollicitent chaque année leur admission à l'école. Pendant un an, ils suivent des cours d'anatomie, de physiologie, de chimie, d'anatomie dentaire et de technologie dentaire. A la fin de l'année, les 100 étudiants qui ont obtenu les meilleures notes sont admis à l'école dentaire, en vue d'y poursuivre leurs études pendant quatre ans. L'enseignement s'étend donc sur cinq années au total.

Angleterre

Entre autres faits, le Dr *Sebelius* a relevé notamment qu'en Angleterre 9657 dentistes ont apporté leur collaboration au programme du National Health Service, entre le 5 juillet 1948 et le 31 mars 1951. Ces dentistes ont examiné 14.800.000 personnes. Il est également intéressant de noter que 60% des fonds consacrés aux soins dentaires, conformément au National Health Service Act, ont été employés à la fourniture de prothèses.

Au service de chirurgie maxillo-faciale d'East Grinstead, où le Dr *Sebelius* a assisté à plusieurs opérations, on pratique une chirurgie non sanglante, d'un genre nouveau, en abaissant la tension artérielle du malade. Environ 500 opérations de ce type ont été effectuées.

Médecine et Hygiène,
1er décembre 1951

Les soins dentaires en Nouvelle-Zélande

Cette étude qui traite de l'état dentaire des enfants en Nouvelle-Zélande et des soins qui leur sont donnés à cet égard a été effectuée au début de 1950, grâce à une bourse octroyée par l'Organisation Mondiale de la Santé. (*Bull. O.M.S.*, Vol. 4, No 1, 1951). Au total, 4.072 écoliers, âgés de 7 à 14 ans, ont fait l'objet d'un examen dentaire, dont les résultats ont été enregistrés à l'aide des notations "DMF" (D=dents cariées, M=dents manquantes et F=dents obturées (pour les dents permanentes) et "def"

(de=molaires cariées et f=molaires obturées) pour les dents temporaires. L'étude a révélé une fréquence élevée des caries dentaires en Nouvelle-Zélande. L'écolier néo-zélandais de 7 ans a, en moyenne, deux dents permanentes atteintes de carie. Ce chiffre s'accroît d'une unité par an, si bien qu'à 14 ans, chaque enfant a, en moyenne, une dizaine de dents cariées. A l'âge de 7 ans, il y a une moyenne de 5,6 molaires temporaires atteintes de carie, par écolier.

Les éléments qui composent le DMF

montrent qu'un grand nombre des enfants reçoivent des soins dentaires. A tous les âges, une forte proportion de dents cariées ont été obturées. Les trois quarts de la valeur du DMF, pour les enfants de 7 ans, et 86% pour les enfants de 14 ans, sont constitués par le nombre F. Plus de 5 molaires cariées (temporaires) ont été soignées chez les enfants de 7 ans.

L'absence de traitement se traduit finalement par le nombre de dents manquantes (M). Ce nombre est relativement faible chez les écoliers néo-zélandais. Il est apparu qu'à l'âge de 14 ans il ne manque, en moyenne, que 0,5 dent à chaque écolier.

Les dents qui ne sont soignées mais qui peuvent encore être sauvées ont été classées dans la catégorie des dents cariées (D). Comme, en Nouvelle-Zélande, la moyenne des dents cariées est de 0,5 par enfant et par an, il est clair que les soins dentaires donnés aux enfants sont très développés.

Le programme national de soins dentaires a donc permis, dans une très large mesure, de combattre avec succès la carie dentaire chez les écoliers, si l'on considère le pourcentage élevé des dents atteintes qui ont été obturées et le faible pourcentage de dents manquantes.

L'auteur de l'étude n'a cherché à déterminer ni l'état clinique des tissus de soutien de la cavité buccale ni la fréquence des anomalies de l'articulé dentaire; il ne s'est pas préoccupé non plus d'apprécier le programme national par rapport aux soins idéaux que devrait recevoir chaque enfant.

En Nouvelle-Zélande, il existe des cliniques dentaires pour écoliers, qui sont dirigées par des infirmières spécialisées (dental nurses), employées et formées exclusivement par le Department of Health. Les études s'étendent sur deux

ans et représentent un total de 1.608 heures. Une fois la période de formation terminée, l'infirmière est affectée à une clinique scolaire. Sous la direction générale d'un dentiste officiel, elle effectue des examens, des traitements préventifs, des obturations, des extractions et des traitements de gencives; en outre, elle enseigne l'hygiène dentaire aux enfants des écoles primaires. Les enfants d'âge préscolaire peuvent aussi bénéficier de ces soins et de cet enseignement. Pendant l'année fiscale 1949, dans les cliniques dentaires scolaires de la Nouvelle-Zélande, chaque infirmière a soigné en moyenne 715 enfants. Chacun d'eux a reçu, en moyenne, 2,2 heures de soins comprenant 6,5 interventions. Le service a fonctionné pour 97% des écoles primaires, tant privées que publiques; 95% des enfants ont été inscrits sur les registres des cliniques.

Ces soins dentaires dispensés aux écoliers par les infirmières spécialisées prennent fin lorsque l'enfant quitte l'école primaire. Depuis 1947, le programme national de soins dentaires a été étendu à tous les enfants jusqu'à l'âge de 16 ans. Les soins sont donnés par des praticiens qui ont accepté un arrangement avec le Department of Health, selon lequel ils assurent un traitement conservateur suivant un tarif convenu. Durant l'année fiscale 1949, 488 dentistes (environ 73% des praticiens de Nouvelle-Zélande) avaient adhéré à ce système et ont traité près de 77.000 adolescents.

Les chiffres donnés par le Department of Health de Nouvelle-Zélande, pour l'année fiscale 1949, révèlent que le service scolaire de soins dentaires a coûté £1 8s. 11d. par enfant et par an. Le prix moyen d'un traitement complet a été, pendant la même année, de £3 2s. 11d. pour chaque adolescent.

Médecine et Hygiène 15 novembre 1951





DOWNTOWN VANCOUVER AND WATERFRONT

In the centre is the Naval Station H.M.S. Discovery on Deadman's Island, with causeway from beautiful Stanley Park. To the left of the Naval Station is the headquarters of the Vancouver Yacht Club. At the background lies West Vancouver at the base of Hollyburn Mountain of the Coast Range.

GOLDEN JUBILEE MEETING

The Canadian Dental Association

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"God save the Queen"

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, MARCH, 1952

No. 3

Construction of the Amalgam Restoration*

by E. CARL MILLER, D.D.S., Cleveland, Ohio

CRITICISM OF CLINICAL RESULTS

IT IS OBVIOUS to the critical observer that the clinical results of restoring teeth with silver amalgam have not shown the improvement expected of a material so prominent in research study. It must be discouraging to those investigators whose research has given dentistry a practical and proven amalgam technique to realize that the common clinical failure is the result of ignorance or carelessness or both. Observation of the clinical amalgam technique employed by practising dentists, obviously shows an utter disregard of the fundamental principles of operative dentistry. Such practices as poor cavity preparation and moisture contaminated operative field will result in failure no matter what amalgam technique is used.

CONFUSION OF PAST LITERATURE

A review of the techniques advised by past investigators reveals amalgam manipulators who to some extent have influenced procedures that are contrary to recent research. The influence of Black¹ has been dominant and his scientific investigations and suggested techniques are generally approved today. Those who have accepted his advice and follow his clinical technique enjoy considerable success with amalgam restorations.

It is unfortunate that more recent and less scientific techniques have in-

fluenced many in the employment of amalgam manipulation which conflicts with the research of Black¹ and more recent investigators^{2,3,4,5,6,7}.

A REVIEW OF LITERATURE

Black¹ was concerned about complete amalgamation. The mercury and alloy ratio should be approximately 60 per cent mercury to 40 per cent alloy by weight. Amalgamation should be complete to a mercury-rich consistency too plastic for condensation. This has been approved by more recent research³. Crandall⁸ advised the use of amalgam which had equal parts of mercury and alloy. Such a mix demanded a forceful trituration and resulted in incomplete amalgamation. This method conflicts with more recent investigations which have proven that undertrituated amalgam corrodes, shrinks, and is weak in structure⁷.

In condensing amalgam, Black¹ stated, "The whole principle of making perfect work is contained in one word, compression. Then the instrument point should be flat and as large as the cavity will conveniently admit and, when practicable, its form should be such as to nearly fit the cavity as possible. With it and the walls of the cavity the mass of amalgam should be grasped as perfectly as possible and powerfully compressed, so as to force the amalgam into all parts of the cavity. About all the force the hand

*Read before the American Dental Association, San Francisco, California.

is capable of should be brought upon it and maintained for an instant. Then more of the amalgam is added and again pressure applied. This should be done as quickly as perfect work will permit, until the cavity is full and much more than full. There should be no burnishing. If a burnisher is passed over the surface of the amalgam from one side of the cavity to another before the amalgam is at least partially set, the amalgam will be drawn away from the wall on one side as it is pressed against the wall on the other."

In direct conflict with this method of condensation Harper¹⁰ advised the application of mercury-rich amalgam to commence the filling. By the use of a rotating burnisher the mercury-rich material was adapted to the cavity walls. It was his contention that the ball-shaped instrument by its burnishing action eliminated air pockets and the very plastic amalgam formed a perfect adaptation to the walls and margins, preventing leakage. He suggested that the use of mercury expressed amalgam in succeeding layers removed the mercury excess by diffusion. Such a method of covering the floor of a cavity will result in excessive linear expansion in that area as suggested by Strader¹¹. Restorations built in this manner are high in mercury content and will show excessive growth⁶.

There should be a clear understanding about the influence of mercury-rich amalgam which is used to start a filling. Strader¹¹ in his experiments of the top and bottom parts of an amalgam restoration built in this manner, found a wide variation in residual mercury, the greater amount being in the bottom portion. Such a mercury-rich portion resulted in three times the linear expansion than the drier top portion. This excessive dimensional change and higher flow causes a stress which not only causes excessive growth of the filling but can be a determining factor in discomfort of the pulpal tissue.

There has been no evidence that the common practice of starting the filling with mercury-rich amalgam has any benefit. Certainly there has been sufficient proof that it does not. In this regard Strader¹¹ wrote, "A restoration should have a better chance of success if the present practice of using a more fluid bottom consistency were discontinued and in its place a procedure adopted in which the consistency of the amalgam being packed is uniform throughout."

Black¹ was of the opinion that expansion or contraction of the amalgam restoration could not be controlled by the operator. More recent research contradicts that opinion. Hollenback¹² and Gaylor¹³ have demonstrated that forceful trituration will cause initial shrinkage. Ward and Scott⁶ after considerable research demonstrated that flow is decreased by forceful condensation and mercury removal.

Black¹ noticed excessive expansion from alloys containing zinc. He advised the use of non-zinc alloys. Recent investigators^{14,15} have shown that moisture will cause excessive expansion of zinc alloys, but recommend their use in preference to the non-zinc alloys because the employment of zinc affords a cleaner alloy.

THE SWEENEY TECHNIQUE

The clinical research by Sweeney^{2,3,4,16} has been a credible advance in amalgam technique. It is obvious that there is no deviation from the Black technique except in the use of an unyielding matrix, modernization of condensing instruments, and the application of a constant and effective force by a mechanical condensor. The evaluation of this technique was definitely based on clinical results. Fillings made by this procedure showed very little evidence of dimensional change and were aesthetically superior in colour and polish.

The Sweeney method emphasized three important phases in amalgam manipulation. First, the alloy and

mercury should be completely amalgamated. Second, excess mercury should be removed from the amalgam before condensation. Third, small pieces of expressed amalgam are condensed with a force either by hand or by machine, which activates mercury excess at the surface of each layer. Some of this mercury excess is removed by instruments that are ledged for this purpose.

An amalgam restoration built in this manner has a low mercury content which effects a decrease in flow and increase in compression strength². This explains very little dimensional change clinically.

CORROSION

A pleasing result of Sweeney-built fillings has been the apparent resistance to early corrosion. Well polished fillings will retain a good luster for years, if mouth hygiene is regularly practised². Schoonover and Souder¹⁷ have suggested that amalgam is more resistant to corrosion if the surfaces of the restoration are homogeneous.

HOMOGENEITY

To construct an amalgam restoration so that its structure is nearly similar throughout, demands careful planning. It cannot be homogeneous unless each particle of alloy is coated with mercury. This demands a mercury-rich mix as advocated by most manufacturers in their specified mercury alloy ratios. Fresh amalgam must be used so that mercury is easily expressed, and each part to be condensed should be about the same consistency. Partially crystallized amalgam will not liberally give up mercury excess⁶. This demands multiple mixes for large cavities and rapid condensation in all cases. Each layer of amalgam must be condensed with sufficient force to pack it into the desired area. This force should be a hammer blow or rocking action to activate surface mercury. Unless mercury appears on the surface during condensation, either the condenser force is not sufficient

or the amalgam is too dry. Mercury excess is necessary to bind the next portion of amalgam and failure to provide this will result in lamination and the structure will be weakened¹⁸.

STRUCTURAL WEAKNESS

There are many factors which will cause the structural weakness of amalgam fillings. The most prevalent is the yielding matrix band which substitutes for the missing wall or walls of the multi-surfaced cavity. Amalgam condensed against a yielding matrix band causes a shift in the filling structure. Credible weakness is noticeable at the proximal margin and especially at the proximo-gingival angles. The effort to establish firm contact by forceful condensation in the marginal ridge area will cause a yielding matrix to allow a general landsliding in this area. This results in a structure that will not withstand normal occlusal forces without fracture in whole or in part.

In the case of gingival third cavities, amalgam cannot be properly condensed unless the instrument faces are designed for this occasion¹⁰. Many gingival cavities and particularly those of bicuspsids, should in most occasions be extended to include the line angle mesially and distally. These extension preparations are made in surfaces that are convex. To overpack a convex surface with a flat instrument or a small condenser will disturb the continuity of the already packed amalgam. Gingival condensers should be as relatively concave as the floor of the cavity is convex. To overpack these fillings the condenser face should conform to the surface convexity of the tooth.

MOISTURE

Moisture will cause three disturbing factors in amalgam construction:

1. A wet cavity will result in margin leakage by the dissolving of the salivary salts¹⁰.

2. Incorporation of moisture in the

amalgam mass will decrease compression strength²⁰.

3. Moisture will cause excessive expansion of modern alloys containing zinc^{14,15}.

METHODS TO PREVENT MOISTURE CONTAMINATION

The field of operation should be protected by rubber dam¹. The use of modern latex rubber expedites the dam application and eliminates the use of ligatures generally. Such a method of preparing the operative field eliminates moisture from the cavity. Clinically this method is time-saving and comfortable to the patient.

All means should be employed in handling amalgam to avoid moisture on the bracket and amalgam should be carried with pliers and the amalgam plunger. At no time should mulling be performed in the palm of the hand. A safe method is to place the triturated amalgam in a clean piece of rubber dam and rub to required plasticity with the thumb and fingers.

THE MATRIX

The importance of the matrix is not to be overlooked. A band which supplies the missing wall of the multi-surfaced cavity should be shaped to reproduce the original surface anatomy²¹. This is especially true of the proximal wall. A study of the proximal surface of the bicuspid and molar, reveals a convexity in the marginal ridge area. This by all means should be duplicated by contouring the matrix band. It is apparent clinically that more definite and anatomical adjacent contact is the result of such preparation. A straight proximal matrix band will result in a like surface. In this case the contact is too high and the interproximal space is triangular. Fig. 1-2. A well contoured matrix band that is wedged at the gingival and reinforced at the embrasures with modeling compound does not demand a mechanical matrix holder. Fig. 3.

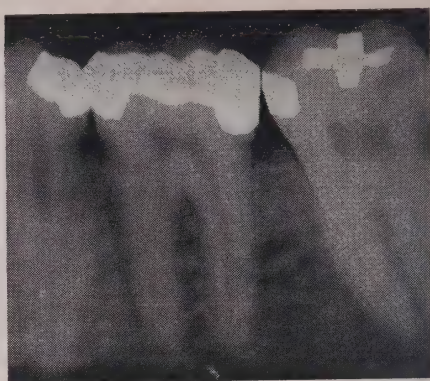


FIG. 1. Distoclusal amalgam restoration showing the result of using an uncountoured proximal matrix band. The straight proximal surface of the filling resulted in food impaction and periodontal disturbance.

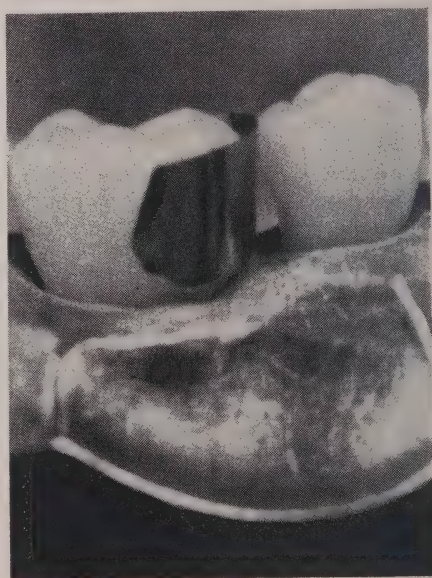


FIG. 2. An uncountoured matrix band in place. Notice the lack of convexity in the marginal ridge area.

THE DISADVANTAGES OF A MATRIX HOLDER

A matrix band held firmly by a holder is a disadvantage in the proximal area. A critical study of a tight band shows that the angles formed by the proximal margin and the band is

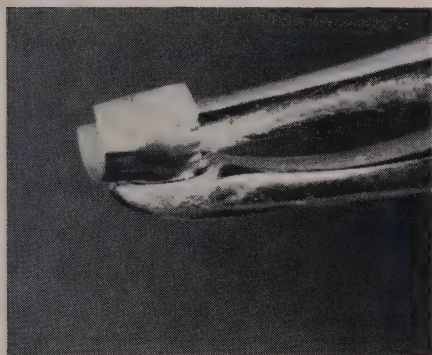


FIG. 3. Contouring the matrix band. Light pressure should be used and the process repeated until a suitable convexity is obtained.

very acute, especially if the band is pushed to conform to adjacent contact. If a plastic instrument is pressed against the proximal matrix angle to allow space for overpacking, the adjacent contact will be relieved.

An independent band held by a wedge will conform to adjacent contact and proper marginal adaptation. This feature will remain if softened compound is carefully applied to the embrasures. In case the band needs readjustment it can be accomplished by a warm plastic instrument pressed

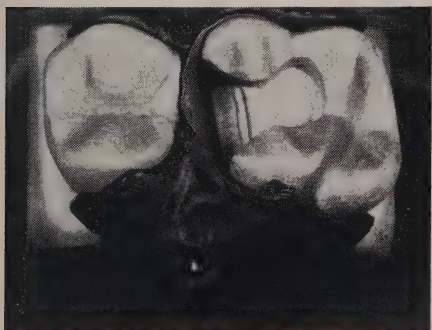


FIG. 4. Complete matrix. Flame softened compound is inserted in the embrasures and extended to include the buccal and lingual surfaces of the adjacent teeth.

against the cavity side of the band. The heat will melt the compound and allow movement of the band in the desired direction. Fig. 4.

OVERPACKING THE PROXIMAL MARGIN

A careful study of amalgam restorations shows many defects at the gingival proximal angles and the proximal margins. These failures are due largely to the inability to overpack these areas. A band which conforms too tightly at the margin to allow excess amalgam, results in a mercury-rich surface which is weak and will easily fracture. It is as necessary to overpack the gingival proximal angles and the proximal margins as it is to overpack the occlusal. By overpacking, the weak, mercury-rich amalgam can be removed during condensation and the important margins are well condensed and strong. The

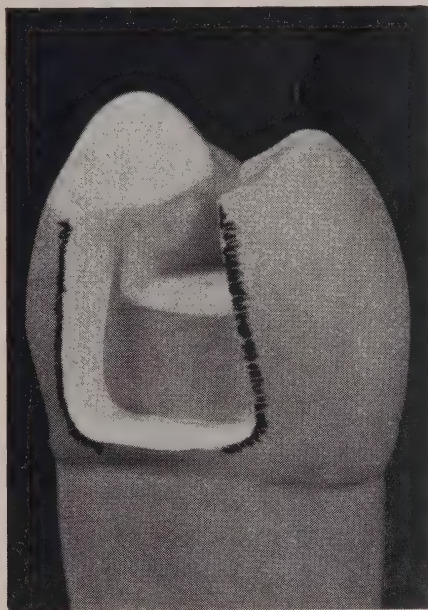


FIG. 5. Proximoclusal cavity of bicuspid. The shaded outline of the proximal indicates where amalgam should be overpacked.

gingival floor to which the band is closely wedged provides sufficient convenience form to condense efficiently, and ably allows mercury removal during this procedure. Fig. 5.

RAPID CONDENSATION

Rapid condensation is necessary to efficiently restore the average cavity.

The working time of amalgam is limited^o. Every means should be exercised to build the restoration with amalgam of the same consistency. The use of the air actuated condenser is a reliable advantage to the operator. A constant and rapid hammer thrust expedites condensation and is instrumental in building a homogeneous structure. The rapidity of action allows the use of amalgam in its limited working time. This type of force activates surface mercury to bind the next layer of amalgam. Fig. 6.

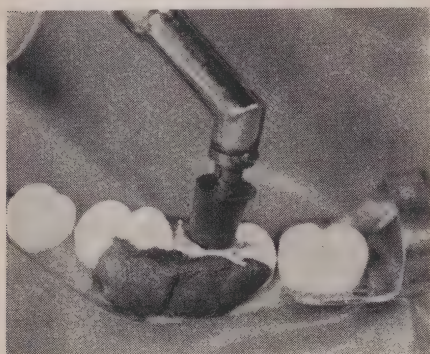


FIG. 6. *Overpacking filling with rubber instrument and pneumatic condenser. The compound provides an unyielding matrix which permits a well condensed restoration.*

The use of the pneumatic condenser demands experience. Too forceful a blow is dangerous and not as efficient as a blow of medium force. If the motor is run too rapidly the hammer blow is ineffective and irregular. By allowing the motor to warm up a few minutes, a regular and effective blow can be achieved¹⁸.

As shown by the recent research by Taylor, Sweeney, Mahler and Dinger¹⁸, laboratory specimens are not effectively benefited by mechanical condensation. This research is important because it demonstrates that a mechanical device is only an aid and not infallible and that all makes are not equally efficient.

For some cavities the hand thrust is efficient. In many larger cavities

the careful and efficient operator will have good results by hand. However, the mechanical condenser which has a hammer thrust will efficiently and quickly condense amalgam.

CONDENSATION OF AMALGAM

All readiness should be exercised to expedite condensation of amalgam into the cavity. There is a tendency of some operators to condense too slowly by hand pressure thrust. Amalgam sets too rapidly to allow its usage after a few minutes. And the use of partially crystallized amalgam retains more mercury than that which is packed immediately^o.

Each piece of amalgam should be fresh. Mercury should be expressed easily. Under condensation there should be surface excess of mercury. This is essential and important. The condenser thrust should be forceful and rapid. When mercury appears the excess should be removed. The next piece of mercury expressed amalgam is added and condensed, using the same manner of force and mercury removal.

OVERPACKING

There has been a common practice of using extra dry amalgam in overpacking the occlusal. Such a practice is definitely wrong because it has been shown²² that the filling will corrode.

The best method to overpack the occlusal surface is to use a small amount of amalgam the same consistency as the preceding layers and to condense rapidly with a rubber-faced instrument. The resiliency of such an instrument will conform to surface of the tooth and the irregular outline of the cavity. Excess mercury is brought to the surface by the activation of this instrument. It can be quickly and easily removed by wiping it off with the instrument.

CARVING THE OCCLUSAL

Amalgam should be allowed to set a few minutes before carving is attempted¹. To disturb soft amalgam is

damaging. A sharp blade should be drawn over the amalgam and enamel margin in the direction of the cavity outline. Carefully the excess is removed. Next, with a pointed instrument the fissures are formed especially in the centre of the surface. With a Frahm's carver the point of which is at the depth of the fissures, the incline planes are formed in such a manner that the amalgam meets the margin at nearly right angles. Amalgam should not be scooped out with a large instrument. This practice allows a sharp incline plane of amalgam which forms an acute angle with the cavity margin.

CARVING THE PROXIMAL

The matrix band is allowed to remain after the reinforcing compound and the wedge are removed. The band serves as a guide in carving the occlusal embrasures and the occlusal portion of the marginal ridge. After this procedure the band is grasped with pliers and pulled buccally in the direction it envelops the tooth, either to the mesial or to the distal. Never should a band be pulled straight to the buccal or lingual because the mar-

ginal ridge convexity would buckle. Removed in the manner that it envelops the tooth, the band will further smooth and round the contact area. Fig. 7.

The proximal margins and gingival angles will need carving. If good adaptation was made with the wedge, there will be no overhand of the middle two-thirds of the gingival. It is good practice to finish carving by pushing a pledget of cotton through the interproximal embrasure to remove all detached amalgam.

The recent research of Phillips²³ has clearly shown the danger of fracturing newly built amalgam restorations because of the low, compressive strength during the first few hours of setting. His investigation, however, emphatically shows an advantage of the fast setting alloy which is three times as strong as the slow setting variety during the first hour. Since it takes eight hours for the average amalgam to reach 80 per cent of its maximum strength, every means should be taken to caution our patients not to use forceful occlusal stress during this time.

POLISHING

Amalgam restorations should be polished. Usually this is done when the patient returns for the next appointment. Previous literature²⁴ has demon-

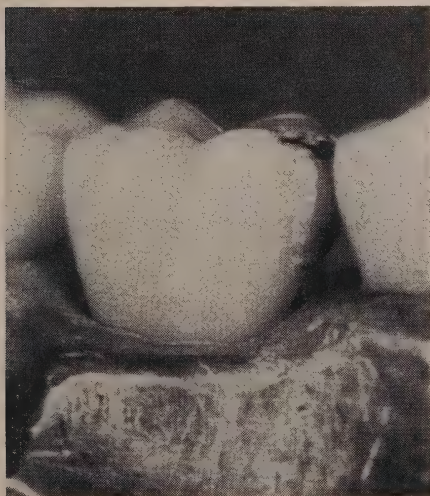


FIG. 7. Buccal view of the finished restoration after matrix removal. Proximal and proximal gingival margins were overpacked and carved.

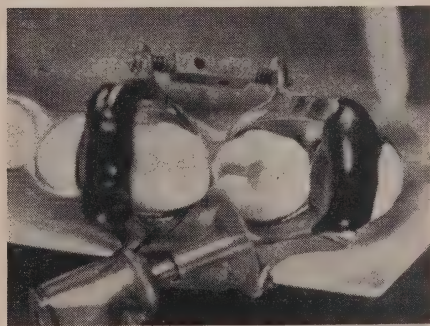


FIG. 8. Method of polishing the proximal surface with fine disks. The molars are separated with Ferrier separator No. 6. Care must be taken to gently polish the contact area. The greatest force is exerted in the occlusal and proximal embrasures.

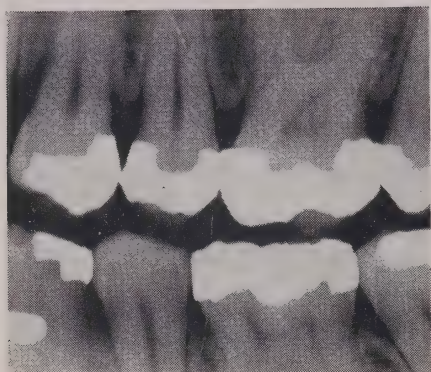


FIG. 9. X-ray of distoclusal amalgam restoration of upper first bicuspid after separation and polishing.

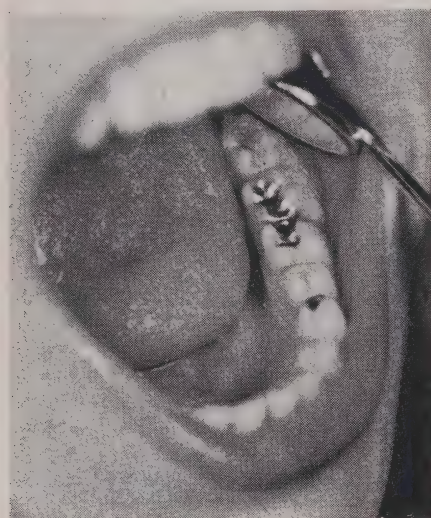


FIG. 10. Adjacent proximoclusal amalgam restorations which are polished and show no apparent dimensional change after five years.

strated the materials and methods for polishing. I wish to emphasize that the value of polishing amalgam cannot be overestimated. Beautifully polished amalgam restorations are a pleasure to the patient and also increase the patient's esteem of your professional abilities. Fig. 8-9-10.

SUMMARY

1. The practice of using undertrituration of amalgam should be discontinued. The common excuse that mercury

expression will unbalance the alloy is without foundation²⁵.

2. The common practice of commencing the amalgam filling with mercury-rich amalgam will not effect as good results as using, and condensing firmly, mercury expressed amalgam throughout.

3. The modern Sweeney technique employs amalgam manipulation which is confirmed by recent research. This technique is practical and can be practised by the average operator.

4. The use of mechanical devices for trituration and condensation is a practical aid. Their use, however, does not ensure success unless intelligently manipulated.

5. Intelligent manipulation of amalgam is dependent upon meticulous operative dentistry, and will effect considerable success and satisfaction. Needless carelessness will result in failure.

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Résumé

1. Il faut cesser d'utiliser un amalgame qui n'est pas suffisamment malaxé. Il ne faut pas croire que l'ablation du mercure détruit la formule de l'alliage.
2. L'insertion d'un amalgame riche en mercure, au début de l'obturation, ne donnera pas d'aussi bons résultats que l'insertion, dans toute la cavité, d'un amalgame débarrassé de son mercure, mais en le condensant fermement.
3. La technique Sweeney recommande la manipulation de l'amalgame et cette façon de faire a été approuvée par des recherches récentes. Cette technique est pratique et peut être utilisée par n'importe quel praticien.
4. Les machines employées pour la trituration et la condensation sont pratiques. Leur travail, toutefois, doit être contrôlé par le dentiste.
5. Une dentisterie opératoire méticuleuse exige une manipulation éclairée de l'amalgame; à cette condition seulement, le succès et la satisfaction viendront couronner les efforts; la négligence est une source d'insuccès.

On Maintaining Enthusiasm For Dentistry

by ISADORE WOLCH, D.D.S., and HARVEY A. ALLEN, D.D.S., Winnipeg, Manitoba

THE article by Dr. J. D. Reddin, Mt. Stewart, Prince Edward Island, in the November 1951 issue of the Canadian Dental Association Journal entitled "Would You Like Your Son To Be a Dentist?" reminded us of the following true experience.

A prospective dental student approached his family dentist to obtain the latter's advice on entering the profession. The dentist's first reaction was: "Why do you want to become a dentist? All you will be doing is filling, extracting and making dentures. You will find the work monotonous, tiresome and not rewarding."

The above is a true experience of one of the writer's of this article. However, as must be obvious, it did not discourage him from entering dental college and obtaining his degree. Now after almost twenty years of practice he finds his enthusiasm for his profession not waning but more keen than ever. Why, on the one hand, should one man belittle his chosen profession and on the other we can readily find innumerable examples of

men who are full of enthusiasm after twenty, thirty and even forty years of practice?

One could be trite and say that the successful dentist is always full of enthusiasm. However, what constitutes success? From a monetary point of view the discouraged dentist quoted above was doing quite satisfactorily but the quality of his dentistry was definitely not up to par. Without a doubt, if day in and day out, one continues to produce work in which one cannot take pride, then one's vocation becomes drudgery. Enthusiasm for dentistry is evinced when one calls a colleague or an assistant to critically inspect an exceptionally nice amalgam, inlay or any other dental procedure which has just been completed for a satisfied patient.

It should prove interesting and helpful for every dentist to analyse the factors that contribute to the maintenance of his enthusiasm. In the opinion of the authors the following are the key factors for successful practice:—

1. Good working conditions:
 - (a) neat office
 - (b) modern equipment
 - (c) operating stool
 - (d) reasonable working hours
 - (e) sufficient holidays
2. Sound operative technique:
 - (a) local anaesthesia
 - (b) rubber dam
 - (c) x-ray
 - (d) diamond points
3. Efficient assistant.
4. Efficient laboratory.
5. Fees commensurate with the quality of the service rendered.
6. Recognition from fellow practitioners.

As a rule when you walk into a drab, shabby and untidy office you will meet a dentist who is long-faced, unkempt and definitely not enthusiastic about the practice of dentistry. Too many men have allowed the place where they spend most of their lives to become run down and neglected. Why not use at least part of the money the income tax department allows us for depreciation to replace worn-out waiting room furniture, outmoded equipment and give the office a face lifting? A tired dentist cannot be an enthusiastic one and that is why an operating stool, no longer than an eight hour day with at least one full hour for lunch, and a minimum of two weeks' holidays every year are essential for every dentist.

Operative dentistry constitutes by far the largest percentage of a general practitioner's duties. Yet, in talking shop at dental meetings we find this is the branch of dentistry most men dislike. We believe the reason for this is based on two factors:—a technique that does not make routine use of local anaesthesia, rubber dam and diamond points, and secondly a fallacy that operative dentistry is not very profitable.

It is still amazing that in this day of profound local anaesthetics, patients are surprised when we prepare to inject before commencing cavity

preparation. The negligible advantage of receiving information of proximity to the pulp is more than outweighed by a relaxed patient that allows for a deliberate and careful cavity preparation.

It is the authors' considered deliberation that no single factor contributes more to better operative dentistry than the use of the rubber dam. Just think of the attitude of the man who is struggling to keep the field dry with messy cotton rolls; the tongue persists in obstructing the view; rosy saliva is wrapping around the bur, while the patient is attempting to carry on a conversation. Now in contrast look at a dentist working in a 100% dry field, with easy access, no complaints to listen to and both speed and ease of operation improved immeasurably. For the benefit of men who have been in practice for a number of years and have not been using rubber dam routinely, we freely admit that we were in the same category. After observing demonstrations of how simple it was to operate under rubber dam, we gradually introduced it into daily practice until today it is routine for 99% of our operative procedures. This includes not only root canal therapy, amalgams, plastics and inlays, but also jacket crowns and bridge abutments. We highly recommend that any dentist who would like to improve his rubber dam technique read the article in the June issue of the *Journal of the Canadian Dental Association*, by Dr. G. D. Stibbs.

It is assumed that most men are using the x-ray machine for routine pre-operative examination, but if more men would take post-operative x-rays there is no doubt that the quality of operative procedures would be definitely improved. Furthermore, just note your own enthusiasm when you can point out a clean-cut filling with no sign of decay or an overhang to your patient.

Just as local anaesthesia and rubber dam eliminate some of the unpleasant

effects of performing operative dentistry so do diamond points remove some of the drudgery connected with cavity preparation. We definitely feel that burs are essential for finishing preparations, but they cannot compare to diamonds for heavy duty cutting. The airbrasive technique is also a step in the same direction although its adoption is still a controversial issue in the profession.

Let it not be construed that we feel simply because a man uses local anesthesia, rubber dam and diamond points that his work must be perfect. These are merely means to a better end. Good cavity preparation and properly manipulated filling materials are still the key factors for top-notch operative dentistry. However, it definitely makes the end easier to approach when the means have paved the path. Any dentist who follows a technique which leads to a better than average result will find it easier to maintain his enthusiasm for dentistry.

The use of auxiliary personnel is a must if dentists are to render an efficient health service to the public. We can definitely learn from our medical confrères who relegate every possible detail to technicians or nurses so that they can be free to concentrate on major issues. We should all use every influence to hasten the day when dental hygienists will be accepted in every province so that together with assistants and laboratory technicians we will have a complete team to relieve us of many of the details that slow up our production.

No matter how idealistic any professional man is, if he cannot earn sufficient to give him a comfortable living then his enthusiasm will be at a low ebb. Paradoxically the reverse is also true, namely, if he does not display enthusiasm for his work he will not attract sufficient patients to

give himself a chance to earn a decent livelihood. We doubt if any dentist has ever become a tycoon from his professional endeavours, however, statistics prove that the average dentist's income is well above that of the average for the general public. It is also a well-established fact that if you can prove to the public that you are rendering a service a little better than the average you will have no difficulty in obtaining a fee that is commensurate with the service rendered.

When we speak of recognition from fellow practitioners we do not necessarily mean on a national scale. If the practitioners in your community recognize the fact that you are attempting to render the highest possible quality of dental services, if they welcome you at dental meetings, if they consult with you on dental problems, if they ask you to participate in study clubs, all these constitute recognition. It is possible to be an enthusiastic dentist without your fellow practitioners' recognition, but with it you feel you have the backing of your entire profession for your efforts.

In conclusion we would like to describe a scene in an elderly dentist's office which we witnessed and is in direct contrast to the episode quoted in the opening chapter of this article. This dentist had just completed some operative dentistry for a four year old girl and she was leaving the office. Suddenly she turned and ran back to the dentist. "Oh! Doctor, I forgot something." He turned to her and said, "What is it, dear?" She put her arms out and gave him a big hug and kiss. He turned to us and said "If her father never pays the account I won't mind. I have been amply rewarded." Here was a man at the age of 60 who had maintained his enthusiasm for dentistry. Yes! I certainly would like my son to be a dentist if he could practise with enthusiasm.

"Dreams come true when a person wakes up and hustles."

Proposed Action Program for Civil Defence Casualty Services

From the Department of National Health and Welfare, Ottawa, Canada

THE Working Party on Casualty Services, at a meeting held in Ottawa on November 12, 1951, recommended certain steps as a means for translating paper planning into early and energetic action. The committee emphasized the need for uniform action across the country in order to avoid gaps in the support program. This is essential in Canada as shortages in professional personnel and essential facilities, such as hospitals, will make it necessary to arrange for assistance from communities which may be many miles from the disaster area. In suggesting a first phase objective for the country as a whole, and a breakdown for individual provinces, it is appreciated that the figures are tentative and can only be finalized after discussion with the Civil Defence Health Service planners in each of the provinces. The first phase action program for Civil Defence Casualty Services in Canada, as recommended by the Working Party, is as follows:—

1. The Working Party stressed the need for the immediate appointment of the following for target and mutual aid areas. (See Civil Defence Health Services Manual Fig. B. 3).

(a) Director of Civil Defence Health Services.

(b) Advisory Council—with representatives from professional associations, voluntary agencies and governmental groups in the community concerned with health.

(c) Assistant Directors of Branch Services.

It was appreciated that in many cases these appointments had already been made but certain key areas had not as yet carried out this important preliminary step. In par-

ticular, the importance of the Advisory Council was stressed as a means of obtaining the support and active co-operation of professional and voluntary groups.

2. When the appointments mentioned in 1 had been completed it was recommended that regional meetings be held to allow local, provincial and federal health services planners to discuss problems of mutual interest.

3. (a) Target and mutual aid areas should prepare a careful inventory of all local resources of personnel, facilities and equipment. When these resources have been carefully assessed it would be possible to determine the additional assistance required from more distant communities.

(b) In order to assist with this assessment it was recommended that provincial and local organizations be supplied with information regarding physicians, dentists and pharmacists available from registers kept by national organizations and by departments of government. Consideration is being given to an inventory of nursing resources in Canada.

(c) It was stressed that Civil Defence planners should avoid, as far as possible, recruiting persons of military age or members of the reserve forces for key position in the Civil Defence Health Service Organization.

4. (a) The members of the Working Party considered it essential that in order to ensure uniformity of action and rapid progress in the development of health service plans in target and mutual aid

areas, small full-time units be employed in larger target areas and part-time units in smaller. The establishment in each case would depend on the size and importance of the target area. For example, in the larger centres, it would probably consist of a physician, nursing consultant and necessary clerical staff.

- (b) The Working Party also considered that similar units would be required at provincial level to co-ordinate plans within the province.

5. First Aid Stations

- (a) It was recommended, as a first phase development, that a minimum of 150 first aid stations be established across Canada and that these units be organized and personnel trained to operational level as quickly as possible.
- (b) A tentative provincial breakdown of the figure suggested in 5(a) can be estimated roughly on the number and importance of the target areas in a province and the strategic location of certain other communities as immediate support areas. However, other variables will occur and these tentative figures can only be finalized after discussion with provincial planners.
- (c) The Working Party accepted the staffing pattern for First Aid Stations set out in the Civil Defence Health Services Manual, Section D., page 8. It recommended also that reserves of personnel be provided to allow for casualties. The casualty factor recommended was one-half in the case of professional personnel and one-third for non-professional groups. The lower casualty factor for non-professional persons was suggested as it was considered practical in most cases to recruit personnel for this group from the periphery or outside the potential target.

- (d) First aid supplies required for training — the Working Party recommended that training kits be provided for each first aid station formed and that the Civil Defence Health Planning group work out the items and quantities required for training. Details are attached as Appendix A of this memorandum.
- (e) Supplies for first aid stations — the Working Party accepted the item listed in the Civil Defence Health Services Manual, Section D., pages 9-11. It recommended the immediate procurement of such supplies in quantities sufficient to meet the requirements of the number of first aid stations to be established. They further recommended the storage of such supplies at regional bases with local storage when the state of emergency indicated this further distribution.

6. Hospitals

- (a) *Existing hospitals of all types*
 - (i) It was recommended that detailed emergency plans be prepared for all existing hospitals in target and mutual aid areas and in other cities with a population of over 50,000. These plans should include the allocation of staff for emergency duties.
 - (ii) It was further recommended that similar detailed emergency plans be prepared for existing hospitals in reception and mobile support communities which are located at points suitable for use as base hospital units.

In order to assist with the detailed planning and to ensure that the results are comparable, a hospital sub-committee is preparing a standard hospital planning survey kit. This material will be reproduced and distributed early in January, 1952.

(b) *Improvised Hospitals*

- (i) It was recommended that detailed emergency plans be

prepared for buildings considered suitable for use as improvised hospitals in target mutual aid areas, also in cities with a population of over 50,000. These plans should include the allocation of staff to these emergency units.

- (ii) It was suggested also that the survey of local resources be carried out by survey teams consisting of a hospital administrator, a nursing consultant and an experienced surgeon.

(c) *Additional Professional Personnel Required to Staff Emergency Hospital Units*

- (i) Affiliated units of physicians for hospital services — The Working Party accepted the details set out in the Civil Defence Health Services Manual, Section E. 2, pages 9-11. It recommended that these units be set up as quickly as possible and in sufficient number to provide adequate assistance for the potential target areas. The actual number to be established in each province could be determined after discussion with provincial Civil Defence Health Planners.

- (ii) The Working Party also stressed the need for specialist teams but considered that more information should be obtained on the type of specialist service required. The Civil Defence Health Planning Group is to obtain this information and it will form part of the advice issued for subsequent casualty service development.

(d) *Hospital Supplies*

The itemized list of essential medical supplies appearing in the Civil Defence Health Services Manual as Appendix B1, was accepted by the Working Party. It was recommended that steps

be taken immediately, as a part of this first phase program, towards the procurement of sufficient of the supplies listed as would meet the requirements of at least 50,000 casualties. It was further recommended that such supplies be stored at regional centres at locations which are readily accessible to potential target areas.

7. *Casualty Service Transportation Arrangements*

- (a) It was recommended that local Civil Defence Health Service planners arrange with the transportation services of their civil defence organization to have vehicles allocated to service the various casualty service units and on a scale consistent with the ambulance services section of the Civil Defence Health Services Manual, Sec. D., Pages 12-13.
- (b) Such local planners were also reminded of the need for detailed planning of transportation to and from more distant points and that these details should be arranged in consultation with the provincial authorities.
- (c) The Working Party also recommended that the advice of the Federal Civil Defence Transportation Committee be obtained on these long distance transportation problems.

8. *Casualty Service Communication*
A similar approach to that adopted for transportation arrangements, was recommended for communications.

9. *Steps Recommended to Assure Energetic Action*

- (a) It was recommended that the details of this suggested action program be submitted to the Dominion Council of Health for its consideration and support.
- (b) It was further recommended that the Minister of National Health and Welfare be asked to inform the Provincial Ministers responsible for civil defence, of the de-

tails of this action program and request that such Ministers do their utmost to see that the program is carried out in their provinces. Also, that the Minister of National Health and Welfare be asked to write to the National professional association giving them the details of the program and urging their active support.

- (c) It was also suggested that a member of the Federal Civil Defence Health Planning Group visit each of the provinces in the immediate future to discuss the details of the action program with Provincial Civil Defence Health planners.

10. Objective Deadline

The Working Party for Casualties Services recommended that June 30, 1952, be regarded as the date by which all action required to implement this first phase program be completed.

NOTE: On page 5 of the 1951 C.D.A. Transactions, recently issued, will be found a policy statement respecting the role of dentists in the Civil Defence Health Services Program which has been approved by the Working Party on Casualty Services.

The 1951 House of Delegates, American Dental Association, approved the maintenance of an agency in each component society, for the purpose of adjusting grievances related to dentist-patient problems. About the only point at issue was the propriety of a suitable name for such a committee. Some were apprehensive regarding the emotional suggestiveness of the word—grievance, once the public is aware of such an agency. Others suggested use of the word—ethics, as more suitable.

While most grievances may involve some degree of ethics, the purpose of this agency is not related strictly to ethics; rather to promote amicable understanding where dissension has developed. We strongly believe in the importance of frankness, and favour use of the word—grievance, since this plainly expresses the purpose without reservation or disguise.—Texas Dental Journal.

Remember, if you are looking for economic security in place of the great American desire for better things for which you, yourself, have striven, you can always find it — all you have to do is go to jail.

—Gen. Dwight D. Eisenhower.

Give what you have; to someone it may be better than you dare to think.—Longfellow.

APPENDIX A

SUPPLIES AND EQUIPMENT REQUIRED FOR THE TRAINING OF FIRST AID STATION PERSONNEL

One unit as listed below should be provided for training purposes for each First Aid Station.

Item	Amount
Stretchers	4
Blankets	8
Instrument set, 1, each containing:	
Scissors, surgical, Mayo 5½ inch, straight ..	1
Scissors, surgical, Mayo 5½ inch, curved ..	1
Forceps, hemostatic, curved ..	12
Forceps, hemostatic, straight ..	12
Forceps, tissue smooth, 5½ inch ..	1
Forceps, tissue, rat-toothed, 5½ inch ..	1
Needle driver	1
Retractor, general operating, nested, one 8¼ inch, one 8½ inch, set ..	1
Handles, knife No. 3	1
Blades, No. 10 .. package 6 ..	1
Tube, breathing (airway), hard rubber or metal (adult) ..	1
Tube, breathing (airway), hard rubber or metal (child) ..	1
Tube, tracheotomy, large (adult) ..	1
Tube, tracheotomy, (child) ..	1
Scissors, bandage ..	6
Dressing, first aid, large military type ..	24
Bandages, gauze, 4-inch by 6 yards with woven edge ..	24
Cellulose dressing, gauze facing medium size, first aid treatment of burns ..	24
Cellulose dressing, gauze facing, large size, first aid treatment of burns ..	12
Bandages, tensile, (for cellulose dressing), 3-inch ..	12
Bandages, tensile, (for cellulose dressing), 6-inch ..	12
Bandages, triangular muslin, 52- by 37- by 37 ..	12
Cotton waste, pounds ..	6
Pins, safety, large, package 12's ..	6
Splints, sets ..	3
Pencils, indelible ..	1
Tourniquet ..	1
Tags, emergency medical, book of 20's ..	6
First Aid Station log book ..	1
Pencils, skin ..	3
Razor blades, package of 10 ..	1
Razor blade holders ..	3
Basins, 9 by 6 by 1½ inches ..	1
Splints, Thomas, complete ..	6
Splints, Kramer, 3½ by 31 inches ..	2
Splints, Kramer, 3½ by 15½ inches ..	2

The Forum

ANCILLARY PERSONNEL IN DENTISTRY

by J. P. WALSH, D.D.Sc. Melb., M.B., B.S. Melb., F.D.S.R.C.S. Eng. and Edin.
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Condensed from British D. Jour.

Much of the literature on ancillary or auxiliary personnel in dentistry is either purely factual or entirely critical. There have been few constructive suggestions for the improvement of existing services or for the establishment of better services.

Before presenting any views on the use of dental nurses of the New Zealand type, it is necessary to consider the use of ancillary personnel in general: that is, whether one agrees with the use of persons specially trained to assist the fully qualified dental surgeon. Perhaps the best argument for the use of such people is that we are already using them; in fact, the practice of dentistry would be impossible without them. Dentistry like its older sister, medicine, is forced to use all the assistance it can get in order to cope with its tremendous tasks.

In dentistry, all countries make use of dental technicians and female dental attendants; in America, hygienists, and in New Zealand, dental nurses are added. We have the assistance also of commercial laboratories which carry out certain technical processes, but in general we rely far too little on ancillary personnel. However, because of the increasing development of specialties within dentistry, much of the essential routine work is now left to the general practitioner. This is an evolutionary change which began in medicine many years before it began in dentistry.

Unfortunately, the almost universal

character of dental disease in civilized communities results in a demand for treatment which the unaided dental profession cannot satisfy. I feel, therefore, that circumstances compel the use of ancillary personnel, provided that, as in medicine, they are people who are trained to do specific tasks under our direction. We would then become like the physician, or perhaps more like the specialist general surgeon who similarly is aided by a whole team of assistants of lower qualification or experience than himself, the assistants leaving to him the most important and difficult operations. I envisage, therefore, an increased use in the future of ancillary personnel, and I imagine that the majority of these will be women. I also imagine that they will be specially trained for the particular tasks they are to undertake. The only point that remains to be decided is the nature of the tasks that these persons should be given. What should they do, and what should they not do?

I do not consider that any partly-trained person can make a diagnosis. Complete diagnosis requires a very wide breadth of training, long experience, and a highly developed knowledge of the fundamental biological sciences. Diagnosis is the highest activity that the dentist can undertake. It is in fact very difficult to find in the dental profession today anyone who has had an adequate training in all aspects of oral diag-

nosis. It would, therefore, be obviously wrong to allow ancillary personnel to be responsible for diagnosis. Similarly, proper treatment planning, which in a general sense is based on diagnosis, requires considerable knowledge and experience and a deep appreciation of the manifold aspects of dentistry. Treatment planning is quite beyond the range of activities of the ancillary person.

WHAT ANCILLARIES MIGHT DO

The performance of technical procedures in the mouth, planned by the diagnostician or the treatment planning specialist, in other words the fully qualified dentist, could, in my opinion, be left to ancillary personnel in the same way that the physician leaves the administration of treatment to the house-physician and the nursing sister.

In some countries it is accepted that prophylaxis is within the scope of partly-trained personnel; yet there are others where it is maintained that the gingival tissues are among the most delicate of all those that the dentist has to treat. There are others, again, where it is equally strongly argued that the preparation or filling of simple cavities in teeth is quite within the scope of persons specially trained in these tasks. Some are prepared to go further and allow simple extractions to be carried out by ancillary personnel. It is evident that there is no common basis for these various opinions.

Perhaps the best approach to differences of opinion, is to ask whether these opinions are based on clearly established facts.

In New Zealand an experiment has been in progress for some thirty years, and the results of that experiment leave no doubt that ancillary workers can be trained to carry out simple technical procedures in operative dentistry. I do not agree that this work should be unsupervised, nor do I feel that nurses should be allowed to be responsible for diagnosis and

treatment planning; but, once the decisions are made, surely there can be no objection to their carrying out routine procedures of a simple nature, thus leaving the more difficult tasks to the dental surgeon.

I feel that special clinics could be established in which a senior dentist examined all the patients, made the diagnosis, and worked out the treatment plan. Radiographs could be taken for him by a person trained in this particular work. If not satisfied with the information at his disposal, he would request further information; then, having made the diagnosis and laid down the treatment plan he would apportion the work to his staff, some of this work being carried out by nurses. More difficult work would require the services of junior dental practitioners working under the senior man. In this way he himself could handle many thousands of patients in a year, and could easily have under his control a large staff of specially trained assistants, the more difficult procedures being carried out by fully qualified dentists. As far as I know, this scheme is not in operation anywhere in the world: it has never been tried. I would be glad to know if it has been tried, and what the results were. To argue on the basis of opinion is unsound, and the idea should be put to the test by a government or by a profession that is interested in the dental health of the people. This system appears to me to be particularly applicable to conditions in Britain.

One point that might immediately cause controversy is the role of the dental mechanic or dental technician at present concerned with the construction of prosthetic appliances. There are those who consider that dental technicians could be trained to carry out professional procedures at the chairside. I do not agree with this because the requirements for diagnosis and treatment planning for dentures are just the same as for any other branch of dentistry. Lesions in the mouth may easily be missed if

their detection is left to ancillary personnel. Even so, the argument has been raised that the dentist could examine the patient, decide the type of dentures required, and let the ancillary personnel construct the dentures. However, there are serious difficulties. For example, the establishment of the correct vertical dimension (and we are wrong in thinking entirely of the *vertical* dimension), and the maintenance of the correct jaw relationships in *all* dimensions is a highly skilled example of diagnosis and treatment, and this must be carried out during the course of the construction of dentures, and must be maintained all through the various processes involved. The chairside procedures of bite-taking, so called, must be carried out by the fully trained dental surgeon. In fact there are few dental surgeons today who really are adequately trained in the many aspects of jaw relationships.

Similarly, the taking of impressions requires a specialized knowledge of

the anatomy of the face and jaws; it is not just a matter of putting a plastic material in the mouth and allowing it to set in the shape of any tissues with which it comes in contact or pushes aside. The final fitting of the denture again requires a considerable degree of skill and experience. Even members of the dental profession sometimes fail to appreciate the complexity of the problems involved in the restoration of masticatory function and the tissue reactions to foreign bodies in the oral cavity. After all, prosthetic dentistry is a well-recognized specialty of dental practice. On the other hand, the technical procedures associated with the construction of dentures have long been carried out by ancillary personnel, and there is no new principle here.

(As for the future of dentistry, the emphasis must fall on education, prevention, and research, but the same principles apply to these problems. Unaided, we cannot achieve the objectives of dentistry.)



A LA MODE

by EDWARD SAMSON, F.D.S.R.C.S. (Eng.)

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I have recently been consulted on a subject that does nothing to raise my self-esteem. "Which," inquires a young friend, "do you consider the best type of surgery coat?" Whether I am being approached as a dentist whose, all too many, years of experience have led me to try an endless succession of modes in surgery attire, or whether as an expert "stylist," as the modern jargon has it, I am not informed. Or perhaps the question holds profounded implications whereby my friend attributes more significance to our traditional uniform than has been customary; in which case the British Museum is a better source of information.

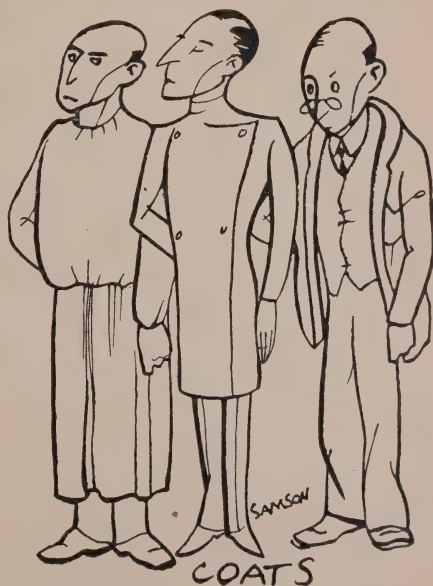
Alternately he may wish to know which coat is easiest to work in, allowing full play during the exertion of major operations; whether there is one immune from loss of buttons, with sleeves that do not occasionally catch fire in the Bunsen burner, and whether there is one impermeable to the excess of starch the laundries lavish upon our wear. Possibly he even wishes to discover whether there exists a coat that can be as honestly aseptic as its immaculate whiteness suggests.

All this could be the burden of his query, and since he sends no photograph of himself he cannot be seeking my advice on the most appropriate wear to his particular age, charm and character. Moreover, I must claim ignorance of the latest vogue in smart surgery suitings for dental surgeons, or even of the ready-to-wear utility fashions prevailing in my provincial home. Yet withal, I am not, I trust, beyond examining this question academically. With Samuel Butler's masterpiece of philosophy, written around the estimable tailor, as an inspiration, I can at least make an attempt at some kind of sartorial philosophy, even if I cannot support my

observations. At least the subject will be no more difficult to get into than my own white coats.

For sheer comfort the theatre gown is, I suggest, unbeatable. Fitting nowhere, without pretensions to fashion, it neither dates nor is excessively modish. Such qualities of moderation at once suggest the gentleman to any discerning patient, if he is not too bewildered by this obvious surgical display to discern at all. Easy to don, the dickens to doff, it is to be recommended only for those who extract, fill and perform all their operations with surgical exactitude. In a word—most unsuitable.

The button-up-high-collar-three-quarter model, mostly seen in the line-drawing advertisements of dental companies, might be called the "Dragon Style"—*trés chic!* Exquisite in line, it denotes in the wearer a taste, at once fastidious and aesthetic, if somewhat too advanced for English conservative taste. Perhaps too tight in waist, neck and arm for hot



weather, it is a joy to behold, provided always the waist measurement of the wearer does not exceed that of his chest. It is the one garment not worn also by bar-tenders, surgeons, and assistants in provision stores; therefore it is nearly exclusive, though there is lately a tendency among better barbers to adopt it. But, after all, an ancient tie with those gentlemen is not to be denied.

Then there is the coat one must term ordinary — the simple jacket which is the mark of the great majority of our democratic body — the dress of the common dentist—to use the term in the enlightened vein. This short, often white apparel is worn, sometimes with pride, by those who are neither dress-conscious nor eager to impress. Its simple drapings are never employed for exhibitionism nor its ill-fitting shape for anything but

its obvious purpose—to suggest cleanliness, or even asepsis, and, to those who know, as an economy in other suits. Its advantages are manifold. It will fit nearly anyone, or no one, the principal or the assistant, the partner or the mechanic. A truly democratic article. It can be worn open when the wearer's size or loss of buttons demand; or, conditions being the reverse, buttoned up. Its pockets, when not rendered inaccessible by starch, will hold as much as a battle-dress: mirrors, estimate forms, old dentures and lost inlays. Of all dental garb the most useful and the most traditional, it is almost the folk dress of our kind.

More than this I cannot offer to help my young friend, unless I suggest, in trepidation, that he joins the Ministry of Health, where the black coat, the antithesis of the white, is *de rigueur*.

REACTION OF PAIN AND TRISMUS AFTER EXTRACTION OF TOOTH

From Jour. of Oral Surgery

Q.—Sixteen days ago I removed a partially impacted lower third molar, under inferior alveolar block anaesthesia from a 35-year-old man. He got along well for three days and then developed severe trismus with pain in the region of the left mandible. The pain and trismus increased in spite of daily antibiotic therapy. The temperature has ranged from 99.6 to 100.5 degrees. There is no external swelling. The patient complains of pain and inability to open his mouth and difficulty in swallowing. What is this patient's difficulty and how should it be managed?—L. N. V., Detroit.

A.—Trismus three or four days after inferior alveolar injection and extraction generally indicates infection introduced at the time of injection. At the end of three or four days, the organisms develop to the point where an abscess begins to form. The inflammatory reaction spreads to the internal

pterygoid muscle which goes into spasm causing progressive trismus and pain. The infection may spread to adjacent muscles. Under antibiotic therapy these, many times, do not develop into pyogenic abscesses, but remain as low grade, smoldering infections which continue to produce an extensive inflammatory reaction. Bulging in the region of the anterior pillar of the tonsil or soft palate may be noted. The blood picture generally indicates infection by the presence of increase in the white count and there is usually a slight fever. The picture may be masked somewhat by administration of antibiotics. In this case, using general anaesthesia, make an incision in the retromolar region and explore the infected region with a haemostat or blunt pair of scissors. A large abscess may not be found, but providing drainage to the infected region will permit the infection to clear up in a short time.

RAMPANT CARIES

by MAURY MASSLER, D.D.S., M.S. and JACK D. ZWEMER, D.D.S.

Summary in paper in Illinois D. Jour., Sept. 1951

The treatment of rampant caries is a challenge to the best skill and background of the dental practitioner. This explosive, mutilating process affects at least 5 per cent of the teen-age population destroying even those teeth which are ordinarily immune to decay. The disease can be successfully controlled only by the elimination of between-meal sugars and cleansing the teeth after every meal. Restoration of the affected surfaces can be planned and executed only after the rate of caries progress has been slowed down to within normal limits — or better, completely arrested, as indicated by Lactobacillus counts. Prevention of the initiation of new lesions can be effected by topical fluoride applications.

The entire program of caries control, dental restorations, and caries prevention can be completed within a period of ten weeks by careful planning, in advance.

Six weeks (one visit per week) are devoted to arresting decay by (1) sugar control, (2) oral hygiene and (3) removal of active decay. Four weeks (two visits per week) are allotted for restorations and topical applications of sodium fluoride.

The necessity for a methodical approach to the management of this condition and the importance of the active co-operation of the patient in successful treatment cannot be over-emphasized.

ANNOUNCEMENT

THE ONTARIO DENTAL ASSOCIATION CONVENTION

will be held in Toronto in the Royal York Hotel on May 11, 12, 13 and 14

The program will include the following Essayists:

Dr. Phillip Jay, Ann Arbor, Mich.
Title—"The Present Status of Dental Caries Control Measures"

Dr. Gordon Nikiforuk, Toronto
Title—"Present Status of Caries Prevention"

Dr. G. R. Lundquist, Chicago, Ill.
Title—"Periodontal Disturbances and Their Management"

Dr. Sidney E. Reisner, New York, N.Y.
Title—"The Temporomandibular Joint: Its Importance in Mouth Rehabilitation, Denture Construction and Neuralgic Pains"

Lecture-clinics will also be presented by:

Dr. Edward C. Thompson, Urbana, Ill.
Title—"Oral Surgery of Interest to the General Practitioner"

Dr. Frank B. Gardner, Scranton, Pa.
Title—"Direct Acrylic Restorations"

Dr. Walter C. McBride, Detroit, Mich.
Title—"A Trip Through the Office of a Pedodontist"

Dr. William R. Mann, Ann Arbor, Mich.
Title—"Airbrasive Technique and its Relationship to the Practice of Operative Dentistry"

Dr. Carl O. Boucher, Columbus, Ohio
Title—"Full Dentures"

Dr. G. R. Lundquist, Chicago, Ill.
Title—"Periodontics"

Dr. W. Aubrey Crich, Grimsby
Title—"Oral Surgery"

Dr. John B. Macdonald, Toronto
Title—"Infection in relation to Periodontal Disease"

Dr. Robert E. Diprose, Toronto
Title—"Radiography"

Dr. Russell A. Hugill, Toronto
Title—"Amalgam Restorative Technique—Common Faults and Corrective Measures"

Dental Public Health Committee—R. M. Grainger, Toronto

GOLDEN JUBILEE MEETING

The Canadian Dental Association
in co-operation with
The British Columbia Dental Association
Vancouver, B.C. • June 15-18, 1952

Sunday, June 15

A.M. Registration

Evening musicale, featuring choral singers, radio artists in a program of classical and semi-classical musical numbers.

Monday, June 16

8.30 A.M. Registration

9.30 A.M. Opening ceremonies and welcome

10.30 A.M. Dr. George M. Hollenback, of Los Angeles, Calif., will speak to the main assembly, on Operative Dentistry

12.00 noon Canadian Dental Association luncheon

2.00 P.M. Dr. Phillip Jay, of the University of Michigan, on Preventive Dentistry

3.00 P.M. Dr. Earl Pound, of Los Angeles, on Prosthetic Dentistry.

5.00 P.M. Canadian Dental Association business meeting.

Evening Hospitality night—arrangements should be made, where desired, for fraternity and class reunions.

Tuesday, June 17

Morning sessions—Group Clinics, as follows:

Dr. D. G. MacIntosh, of Toronto, on Periodontia

Dr. G. D. Stibbs, of University of Washington, on Operative Dentistry

Dr. D. H. Hagen, of Seattle, on Operative Dentistry

Dr. A. G. Racey, of Montreal, on Pathology

Dr. R. R. McIntyre, of Calgary, on Orthodontia

Dr. D. H. Gylenberg, of Long View, Wash., on Operative Dentistry

Dr. B. Jankelson, of Seattle, on Prosthetic Dentistry

Dr. J. Ingle, of University of Washington, on Endodontia

Dr. A. A. Schultz, of Seattle, on Operative Dentistry

Dr. F. L. Jacobson, of University of Washington, on Operative Dentistry

Noon—Luncheon where you will

2.00 to 5.00 P.M. Chair and Table Clinics

2.00 P.M. Dr. Saul Robinson, of Portland, Ore., Lecture and Progressive Group Clinic on Prosthetic Dentistry

3.30 P.M. Dr. John Kuratli, of Portland, Ore., on Inlays, Crown and Bridgework.

7.00 P.M. President's Reception and Dance (informal). An outstanding one hour floor show, and dancing until 1.00 A.M. on Canada's finest spring dance floor.

Wednesday, June 18

Morning sessions—Repeat of Group Clinics

Noon—British Columbia Dental Association Luncheon

2.00 P.M. Dr. H. M. Worth, of Toronto, on Some Aspects of Diagnostic Radiology

3.00 P.M. Dr. Roy West, of Seattle, on Oral Surgery for the General Practitioner

LADIES' PROGRAM

June 15th

Sunday evening musicale (see general program)

June 16th

5.00 P.M. Cruise on the SS Lady Cynthia, via Point Atkinson through Howe Sound, stopping for dinner at the famous summer resort of Bowen Island

June 17th

Afternoon—Entertainment being planned

Evening—President's Dinner and Dance—see general program

June 18th

11.00 A.M. Coffee party in the Social Suite of the Hotel Vancouver, followed by a tour of five beautiful homes in the British Properties in West Vancouver. Bus leaves from Hotel Vancouver.

HOBBY SHOW

The immortal Sir William Osler said "No man is really happy or safe without a hobby." A large proportion of dentists and their wives are hiding their artistic talents. To encourage these gifted ones, as well as others members, the Hobby Exhibit was started by the C.D.A. three years ago. It began with a modest exhibit at the Toronto meeting, but last year, at Ottawa, a grand display almost stole the show. Therefore, with your co-operation, this year's display should be something well worth while.

All forms of art are eligible for display—oils, water colours, etchings, photographs, wood carvings, sculpture, metal work, etc.

The entire east wall of the large ballroom of the Hotel Vancouver has been reserved for this purpose.

Please get in touch with the chairman, Dr. J. S. Bricker, of 1513 Medical-Dental Building, Vancouver, at your earliest convenience, with information concerning your exhibits, so that proper display space may be assigned to give the best effect to your work.

GOLF

It seems a foregone conclusion that any golfer attending the Jubilee meeting will bring his clubs, to try out one or another of Vancouver's famous courses. There will be a tournament on June 14, and the chairman of the golf arrangements is most anxious that you indicate your intention to enter.

Please send your name at once to Dr. Bob Stewart, 4534 Dunbar St., Vancouver, if you wish to enter the tournament.

*I must go down to the seas again, for the call of the running tide
Is a wild call, and a clear call, that may not be denied
And all I ask is a windy day, with the white clouds flying,
And the flung spray, and the blown spume, and the seagulls crying.*

—JOHN MASEFIELD



VANCOUVER, LAND OF THE THUNDERBIRD
CANADA'S EVERGREEN PLAYGROUND

ANNOUNCEMENTS

● **THE BOARD OF GOVERNORS' MEETING** of the Canadian Dental Association will be held at the Hotel Vancouver June 11-14. These meetings are open to all members of the C.D.A. and those holding official positions in any Canadian dental organization are especially urged to be present.

● **TRAVELLING RATES TO THE JUBILEE CONVENTION** in Vancouver. Authorized dates for starting the trip are as follows:—From stations on Western lines (West of Fort William and Armstrong) starting dates are June 7-13. From stations east of those points, with the exception of Newfoundland, starting dates are June 4-10, and from Newfoundland June 1-7. Identity certificates may be had from the Secretary of the C.D.A. at 234 St. George Street, Toronto and are necessary in order to secure reduced rates.

● **REGISTRATION FEE FOR GOLDEN JUBILEE MEETING** is \$15.00 which may be sent to Dr. Chas. M. Whitworth, 218 Medical Dental Building, Vancouver, with request for hotel reservations.

● **DENTAL COUNCIL OF CANADA EXAMINATIONS, MAY 26-31** at the College centres. Oral examinations will be held at a time convenient to the Oral Examiners.

● **THE 85TH ANNUAL CONVENTION OF THE ONTARIO DENTAL ASSOCIATION** will be held in the Royal York Hotel, Toronto, **MAY 11-14, 1952.**

● **FOURTH MARITIME DENTAL CONVENTION**, Lord Beaverbrook Hotel, Fredericton, N.B., **JULY 7-9.**

● **28TH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** will be held in Montreal **OCTOBER 22-24, 1952.**

● **AMERICAN ACADEMY OF DENTAL MEDICINE** in Montreal **MAY 29-31.**
All interested dentists and physicians are invited.
National Sec.—Dr. Wm. M. Greenhut, 124 East 84th St., New York 28, N.Y.

● **AMERICAN DENTAL ASSOCIATION Convention**, St. Louis, Mo., September 8-11, 1952.

● **UNIVERSITY OF TORONTO FACULTY OF DENTISTRY, CONTINUATION COURSES FOR GRADUATES IN DENTISTRY**

ORTHODONTICS—March 31-April 4. Enrolment limit 10. Tuition Fee \$75.00.

PEDODONTICS—April 14-16. Enrolment limit 12. Tuition Fee \$50.00.

DENTAL ORAL SURGERY AND ANAESTHESIA—April 21-25. Enrolment limit 12. Tuition Fee \$75.00.

PERIODONTICS—April 28-May 2. Enrolment limit 14. Tuition Fee \$75.00.

Address enquiries to the Dean, Faculty of Dentistry, Univ. of Toronto, 230 College Street, Toronto 2B., Ontario.

● **FIRST NEW YORK UNIVERSITY INDUSTRIAL DENTISTRY SEMINAR:**—The New York University, the Post-Graduate Medical School, the Post-Graduate Division, College of Dentistry, the Institute of Public Health and Industrial Dentistry, with the co-operation of the First and Second District Dental Societies of the State of New York announce the **FIRST TWO-DAY SEMINAR** on Dental Aspects of Public Health and Occupational Health, April 10-11, 1952 at the Dental College Building, 209 East 23rd Street, New York. Tuition \$25.00 for both days, \$15.00 for one day. Apply to the Dean of the N.Y. Univ. College of Dentistry at the above address.



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Editorials

HIS MAJESTY KING GEORGE VI

As the February issue of this journal was being printed we learned with deep sorrow of the death of His Majesty the King at Sandringham on February 6. In common with all members of the British Empire the dental profession of Canada mourn the loss of our late Monarch King George the Sixth. We honour his memory as a great King whose rule has provided another shining chapter to the history of the British Empire. We are grateful, too, for the example of his personal life as a devoted husband and father and a man of upright character.

At this time we recall a passage from the last Christmas message by His Majesty on December 25, 1951: "We are living in an age which is often hard and cruel, and if there is anything that we can offer to the world today, perhaps it is the example of tolerance and understanding that runs, like a golden thread, through the great and diverse family of the British Commonwealth of Nations."

The loss of this great and good Monarch, beloved by his peoples, brings a sudden pause to the members of the Canadian dental profession as it does to the multitude.

M.H.G.

WITHIN THE LAW

A prominent British dental friend of mine told me recently of an interesting experience he had when visiting a dentist in one of the English towns. It was at a time when the government was paying for an unlimited number of radiograms and so many were being taken that there was a shortage of x-ray films. My friend saw in an open cabinet drawer in the office of his confrère a host of x-ray films and asked if it would be possible to purchase some. The answer was "They will do you no good for they have all been exposed. They have not been developed but the government can have them if it so desires." While this man was living "Within the Law" it was a destructive state of affairs and showed a mind devoid of conscience.

However, we do not have to travel so far afield to see deplorable instances of objectionable practice, not just like this, for Canada has not yet stooped to the level of socialized dentistry. The misdemeanour just mentioned had only to do with government funds, while the stories which come to me as Editor of the Journal and which I discuss here, have to do with the health, the comfort and the peace of mind of human beings. Teeth are among our most valuable possessions and should not be lost so long as it is humanly possible to keep them in a condition of health. How can we condone the dentist who advises a patient to have his or her teeth removed because there is an incipient periodontal involvement, telling the patient that he will have better ridges for dentures than if he waits until the alveolar process is destroyed by infection. Is this advice due to ignorance or merely a desire to make the odd dollar? If due to the latter, let us hope that justice will catch up with him some day. If due to ignorance, let us hope that he will wake up to the necessity of taking some postgraduate course, of which there are many, that will place him in a position to treat these cases and save such teeth, or else, in fairness to the patient, send him to someone who does know how to treat gingivitis and periodontal lesions.

Another instance of more than ordinary interest came to hand the other day. In one of our leading cities a patient felt some discomfort in his mouth and learning that his own dentist was out of the city, consulted an exodontist, a specialist in extracting teeth. This patient was wearing a full upper denture and may have suggested to this exodontist that it might be a good idea to have his lower teeth out also. (Fig. 1). I am not sure of this but let us give the dentist the benefit of the doubt. In any case, the exodontist made an appointment at the hospital a few days later to have all of these teeth extracted under a general anaesthetic and advised the patient to see his own dentist re the denture. The following day the patient found that his own dentist had returned so decided to consult him, when he was told that total extraction was unthinkable and referred him to a periodontist for confirmation of his diagnosis. With very little treatment these teeth were placed in excellent condition and with average care should serve well for many years. At times dentists may disagree as to the ideal procedure in a given case,

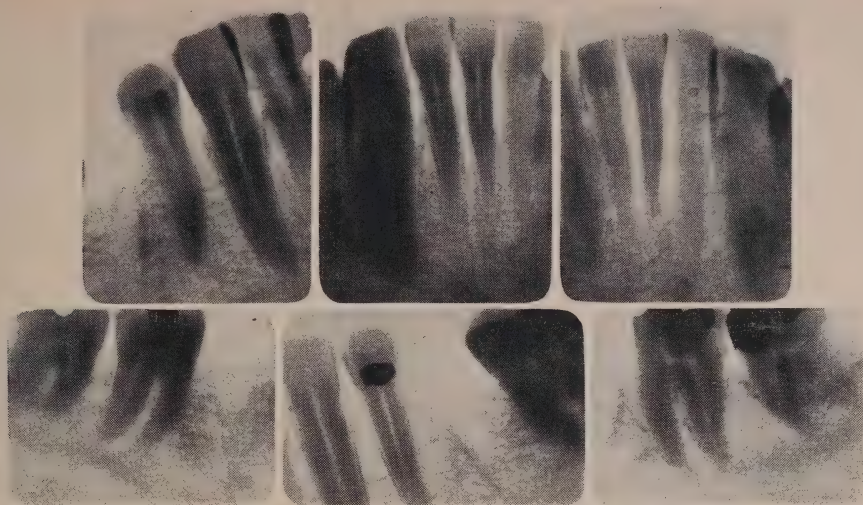


FIG. 1.

but here the family dentist and another consultant agree that in their opinion these teeth should not be extracted.

I am very sure that it would be hard to find a surgeon who would amputate a man's leg because he was having trouble with one of his toes and just because the patient was foolish enough to suggest it. Such men bring dentistry into disrepute, so let us give thanks that there are very few such practitioners, "Within the Law" perhaps, but very wrong just the same! However, justice will follow some day. "God does not always settle His accounts in October." If this is not ignorance, then it is just wrong practice, a wrong heart. As Molière said, "There is no secret of the heart which our behaviour does not disclose."

In the November issue of this journal there appeared a paper by Dr. Reddin of Mt. Stewart, P.E.I. entitled "Would you like your son to be a dentist?", in which he states that our services are not very well appreciated by the general public and that well-thought-out plans to enlarge and enrich our heritage is the challenge of today. This paper is referred to in the Correspondence Section of this issue in which the writer of the letter states that the basic factor affecting the successful practice of dentistry is "More people should have more dentistry"—not the kind we have just described—and that this should be brought about by justifying dentistry to the public by an educational program. In this present issue of the Journal there appears also a paper by Doctors Wolch and Allen on "Maintaining Enthusiasm for Dentistry." The ideals set forth in this paper are well worth careful perusal and answer some of these problems to which we have just referred, that is, have high ideals and live up to them. No amount of advertising can place dentistry on a pinnacle if dentists are prepared to live just "Within the Law" and not render the health service to which they were

called by preventing dental disease when possible, and by treating dental disease when it appears, not by washing their hands of all such problems by extracting the teeth of the trusting patient. Fortunately, the very large majority of dentists realize that they belong to a noble profession and are doing everything possible to advance that profession, not only in the eyes of the public but in the eyes of their confrères. They are doing what Sir Wilfrid Laurier said in his last public address, "Banish doubt and hate from your life, let your soul be ever open to the prompting of faith and the gentle influence of brotherly love. Be adamant against the haughty. Be gentle and kind to the weak. Let your aim and purpose in good report or ill, in victory or defeat, be so to live, so to strive, so to serve, as to do your part to raise even higher the standard of life and of living."

Why not let us all strive to live that way and then we shall hear the music of fine service in our hearts long after others hear it no more. As Carl Schurz says:

"Ideals are like stars
You cannot touch them with your hands
But, like the sea-faring man on the desert of waters
You choose them as your guide,
And following them you reach your destiny."

M.H.G.

BOOK REVIEWS

YEAR BOOK OF DENTISTRY — 1951,

by Tylman, Keys, Knutson, Moore, Robinson, & Waldron. Publisher: The Year Book Publishers, Inc., 200 East Illinois St., Chicago II, U.S.A., 512 pages. Price: \$5.00

The Annual Year Book brings a compendium of new knowledge of dentistry within the easy reach of every member of the dental profession. The literature of the past year is carefully studied by outstanding authorities in each subject. Selections are made, condensed retaining the more important parts and presented in very readable form.

Comments by the Editors appear in brackets following the respective articles more frequently in this year's volume than formerly. These are cogent and form a most valuable part of the book. Illustrations, as appeared in the original article, have been reproduced to a large extent.

It is impossible for the busy practitioner to cover but a small part of the ever expanding

literature. The Year Book offers a review, skilfully done, for the educational advancement of every reader.

D.W.G.

The Golden Kernel and Other Poems

by I. B. Ezra, D.D.S., of Windsor, Ontario. 115 pages. Published by The Derby Publishing Company. Price \$2.00.

It is unusual for a dentist to publish a book of poems but this is what Dr. Ezra of Windsor, and formerly of Winnipeg, has done. The Publishers have well described this book as possessing the quality of intimate conversation in its effort to present a record of Canadian heritage in verse: "God's prairie where Earth and Heaven will reverberate in joy and laughter to the anthem of achievement." It is written not only to carry this message but to offer the reader both joy and entertainment.

Those who enjoy poetry will peruse this book with pleasure.

M.H.G.

"Great truths are dug up, not stumbled on."

CORRESPONDENCE

**MORE PEOPLE SHOULD
HAVE MORE DENTISTRY**

November 29, 1951

Dr. J. D. Reddin
Mt. Stewart

Prince Edward Island, Canada

I have read with considerable interest your article in the November issue of the C.D.A. Journal. Noting your invitation, "Let's Start An Argument," I might begin by saying that I cannot do this, because I am entirely in agreement. I would, however, like to make a few comments on the points you bring out.

It would strike me that most of the troubles afflicting the successful practice of dentistry can be attributed to one basic factor: "More people should have more dentistry."

This has long been a favourite subject of the writer, and I have written innumerable letters on various phases of the problem and also published an article in Oral Hygiene magazine several years ago, which caused considerable comment at the time, but unfortunately no action.

I believe the dentists, and to some extent supported by the industry at large, should not only admire the publicity job being done by and for the medical profession, but should emulate it. The trouble with this is, however, that the profession, both here and in Canada, seems unable to agree within its own group on the most practical methods of implementing such an activity, even granting that it recognizes the need, which I sometimes doubt.

The first thing to remember in considering a plan for dissemination of knowledge to the public regarding dentistry is that we are living in 1951, and our thinking should be so guided. The dentist who is mindful of his economic future should also recognize that if he is to attract an adequate income and some degree of security with his efforts, that he is not in competition with other dentists, but rather with outside groups and individuals ranging from the corner candy store to the manufacturer of automobiles, and including every producing activity which is aimed at developing articles or services which are sold to people in return for dollars. If he is to obtain a larger share of those dollars and, altruistically speaking, extend greater benefits to the public, he must find ways of bringing information to the public using the same mechanics to do so that

the manufacturer of shirts, of radios, and of aspirin uses. He must familiarize himself, as a group, with all forms of publicity, including, if you will, paid advertising. I know that this word sends shivers up the backs of most professional men, because they quickly associate it with advertising that is done by a dentist on behalf of himself. Obviously I do not mean that. I mean advertising that explains, enthruses over, and justifies dentistry to the public, with all its health, social, and business implications.

We all know that dentistry is, or can be, performed with practically a minimum of pain and discomfort today. Does the public know that? We all know that a great many people are in need of, and would be happier with, complete restorations of their teeth. Has anything ever been done to condition the public mind to that operation of changing over to artificial teeth? It is a major event in any individual's life, but it can and should be presented as a pleasing and beneficial change, which it most certainly can be, and which the writer, having long since gone through it, can testify to.

Many and all aspects of dentistry and its relation to the general well-being of the population could be sold in a dignified way, but nevertheless sold to the public via the mechanics of modern communication.

This type of activity is complementary to and in support of the good work already being done in school lectures, in occasional articles which appear in the lay press, and by other well-known, although severely limited, means. It would require money of course, but such money would be small indeed to the individual dentist, and the job probably could be accomplished in a very powerful and influential way with an annual contribution per dentist that might not exceed one-fifth of the amount that the American physicians were happy to subscribe toward the fight against socialization of medicine in this country.

I hope I haven't bored you, but it is my conviction that there is much food for thought here, and a very great need on the part of the profession to advance their thinking along these lines.

Signed:—J. K. Macneill

Myerson Tooth Corporation

Cambridge, Massachusetts.

ROYAL CANADIAN DENTAL CORPS NEWS

1. 20 Canadian Field Dental Detachment which is providing dental treatment for the 25th Brigade in Korea has been redesignated as the 25 Canadian Field Dental Unit.

2. 27 Canadian Field Dental Detachment serving with the 27th Brigade in Northwest Europe has been redesignated as the 27 Canadian Field Dental Unit.

3. Seventeen undergraduates in their final year in dentistry at University have been appointed to the R.C.D.C. in the rank of 2nd Lieutenant.

4. Capt. F. M. Nesbitt has returned to Canada from a tour of duty with the 25th Canadian Field Dental Unit in Korea.

5. Dr. H. E. McKenna of St. John's, Newfoundland, has been appointed in the rank of Captain to the R.C.D.C. Capt. McKenna graduated from McGill University in 1941 and obtained his D.D.P.H. from the University of Toronto.

6. Major G. R. Covey recently completed a course in advanced dentistry at the Dental Division, Army Medical Service Graduate School, Army Medical Centre, Washington, D.C.

7. Lieut.-Col. James P. Whyte, E.D., Swift Current, Sask., has been appointed to Prairie Command Reserve Force Dental Advisory Staff and promoted to the rank of Colonel.

OFFICERS COMMANDING AND QUARTERMASTERS—CONFERENCE

14 JAN. '52 - 17 JAN. '52

Seated, left to right: Lt.-Col. K. M. Baird; Brig. E. M. Wansbrough; Major-General W. H. S. Macklin; Lt.-Col. F. R. Drewry; Colonel C. B. H. Climo; Lt.-Col. R. E. Carroll. *2nd row; left to right:* Capt. J. W. Fletcher; Lt.-Col. F. J. MacLean; Lt. L. K. Wansbrough; Major J. K. McNally; Lt.-Col. G. B. Shillington; Colonel L. E. Kent; Lt.-Col. P. R. LaSalle; Major V. R. Farrell.

3rd row; left to right: W/O I. E. Clark; Lt.-Col. W. E. Meldrum; Colonel C. L. Strachan; Lt.-Col. H. L. Harris; Lt.-Col. I. A. L. Millar; Colonel J. E. Edgecombe; Capt. A. W. Brusso; Lt. C. A. Casterton; Major J. G. Hamilton.

Absent when photo taken: Colonel J. P. Whyte; Lt.-Col. J. A. MacGowan; Major W. R. Cunningham.



A veteran of military service and association dating back to 1928, Colonel Whyte served overseas with the Canadian Dental Corps throughout most of the Second World War. In pre-war days he was a member of the 14th Canadian Light Horse (NPAM). He was appointed to the C.D.C. in the rank of Captain in 1941 and proceeded overseas in 1942.

Colonel Whyte held a series of positions in the United Kingdom and North-west Europe, culminating in the appointment of Deputy Director of Dental Services for Canadian Forces, C.M.H.Q., London, 1946.

He was retired from the Canadian Army Active Force with the rank of Lieutenant-Colonel in December, 1946.

A graduate of the University of Toronto, Colonel Whyte is the Saskatchewan member of the Board of Governors of the Canadian Dental Association. He has been active in sports and served as President of the Saskatchewan Amateur Hockey Association. Since leaving active service, Colonel Whyte has been a practising dental surgeon with the Swift Current Clinic.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

London Congress—July 19-26, 1952: As the London Congress occurs during the height of the tourist season hotel reservations and boat passages are becoming difficult to secure. The Canadian Dental Association appointed Thos. Cook and Son Ltd., some months ago to look after reservations for C.D.A. members. This firm is holding block reservations for C.D.A. members but we are given to understand that RESERVATIONS WHICH ARE NOT TAKEN UP WILL HAVE TO BE RELEASED EARLY IN FEBRUARY. If interested you should write Thos. Cook and Son Ltd., 75 King St. W., Toronto immediately.

Reduced Railway Fares for Vancouver Meeting:—The Canadian Passenger Association has granted reduced fares for persons attending the Annual Meeting of the Canadian Dental Association to be held in Vancouver, B.C., June 11-18, 1952.

The authorized dates for the start of the going journey will be as follows:

"From stations on Western Lines (i.e., all points west of Fort William and Armstrong, Ont.)—June 7-13, incl., 1952. From stations on Eastern Lines (Fort William and Armstrong, Ont., and all points east thereof) except those in Newfoundland—June 4-10, incl., 1952. From stations in Newfoundland—June 1-7, incl., 1952."

In order to secure reduced fares it is necessary to present an Identification Certificate at the time of purchasing tickets. Identification certificates may be secured by writing: The Secretary, Canadian Dental Association, 234 St. George Street, Toronto, Ont.

Supplementary Statement on Fluoridation of Water Supplies by Research Committee:—"Evidence is rapidly accumulating with respect to the reduction in caries incidence in child populations following the addition of sodium fluoride to communal water supplies. As reported in an earlier statement by this committee a number of scientific and administrative organizations are now recommending the fluoridation of municipal water supplies. The National Research Council in Washington and the American Medical Association have recently added their approval to this procedure.

"While the facts in support of a reduction in caries for the teeth of young children are now well established, there is no evidence available as to the effects of a long term ingestion of sodium fluoride either in relation to general health or to the health of the supporting structures of the teeth. Unconfirmed reports suggest the possibility of more gingival and periodontal disease in fluoridated areas.

"Until scientific evidence is provided in all aspects of the problem the Research Committee recommends that communities interested in fluoridating their water supplies do so only on an experimental basis, and that accurate records be kept of all details of the study. By so doing not only would the children benefit by a reduction in caries but much valuable information would be added to our present knowledge.

"The Research Committee is well aware of the magnitude of this public health problem. It will continue to examine new evidence as it is released and will make reports to the profession when additional information is available."

See previous statement—Journal Cana-

dian Dental Association, March 1951 on page 164.

Personal Expenditures for Dental Services in United States:—Figures recently released by the U.S. Department of Commerce indicate that consumers paid \$991,000,000 to dentists during 1950, an increase of 6.4 per cent over the previous year. Amounts for government and philanthropic care are not included.

Per capita expenditures for dental care in 1950 were \$6.60 based upon the total population in the United States. The per capita dental care bill has grown steadily from a low of \$2.20 in 1933. It is estimated U.S. dentists see 60 million patients during a year. The average dental account per patient in 1950 would be thus approximately \$16.50.

Part of the increase is obviously due to increases in fees. Dental fees in U.S., according to the index for dental care developed by the U.S. Department of Labor, were 54 per cent higher in 1950 than the average for 1935-39. The per capita expenditures for dental care have almost doubled since 1935, even with fee increases ruled out which is the same as saying that the amount of dental service per capita has almost doubled. However, the amount of dental service per capita has remained almost constant since 1943.

The above facts appear in the January issue of the Journal of the American Dental Association. Comparable data for Canada is not available.

Prevention in a Dental Health Program:—A pamphlet entitled "Prevention in a Dental Health Program" has been distributed to the membership. The subject matter of this publication was prepared by the Health Insurance Studies Committee. Additional copies in English or French are available upon request.

Certificate re Attendance at Annual Meeting:—For purposes of obtaining deduction of expenses incurred in attending the 1951 Annual Meeting at Ottawa, certificates have been mailed out during

January to all those with registered attendance. Members are reminded that only the certificate needs to be submitted with the income tax return but receipts of expenses incurred are to be retained by the dentist for inspection purposes. Such expenses must appear in the office records of the dentist in order to qualify for deduction.

Dental Students' Register:—Following will be found tables constituting the Dental Students' Register for the current academic year. As compared to the academic year 1950-51, there are 128 less students in attendance at Canadian dental schools. According to information received there are 42 Canadian students in attendance at dental schools in the United States this year who will for the most part return to Canada upon graduation. If this number be added, a total of 797 Canadian students are studying dentistry at the present time.

One table has been added to the regular Students' Register this year (Table 7). In this table effort has been made to set forth by percentage of students in the schools and also by the ratio of these students to population for the province where the student resided when application was made to enter the school. Certain deductions can be made from this table on a comparative basis. For example, it may prove interesting to note that British Columbia and Saskatchewan have at present a higher percentage of students in dental schools than Alberta, whereas Alberta has a dental school and the other two provinces have none.

The ratio figures are perhaps of more value for comparative purposes for the reason that the relationship to the population gives a truer picture of the situation. Stress is laid upon the point that too much value should not be placed upon the calculations contained in Table 7 for any one given year. The number of students involved to make radical change in the ratio relationship in some provinces is small. Value does exist in using this table as a guide and for comparative purposes in future if it becomes possible to produce the table annually.

1951-1952 DENTAL STUDENTS' REGISTER (as reported by Deans of the schools)

TABLE 1

Total Enrolment of Undergraduate Students in the Dental Schools of Canada as of January 2nd, 1952

University	Freshmen	Sophomores	Juniors	Seniors	Men	Women	Total
Dalhousie University . . .	12	12	13	12	47	2	49
McGill University	37	38	34	36	145		145
University of Montreal . . .	16	23	53	48	140		140
University of Toronto	79	65	71	85	295	5	300
University of Alberta	29	30	34	28	118	3	131
Totals	173	168	205	209	745	10	755

TABLE 2

Maximum Number of Undergraduate Students that will be Accepted in a class in Your School

Dalhousie University	12
McGill University	35
University of Montreal	60
University of Toronto	75
University of Alberta	30
Total	212

TABLE 3

Recapitulation of Undergraduate Enrolment in the Dental Schools of Canada 1940-1951 Inclusive

School	1940-1941	1941-1942	1942-1943	1943-1944	1944-1945	1945-1946	1946-1947	1947-1948	1948-1949	1949-1950	1950-1951	1951-1952
Dalhousie University	31	25	25	22	28	27	38	37	41	48	48	49
McGill University	58	61	67	67	51	73	111	127	146	147	145	145
University of Montreal	104	118	139	154	162	184	188	208	224	225	196	140
University of Toronto	210	232	270	255	264	180	340	435	478	478	380	300
University of Alberta	51	49	53	24	34	54	108	115	123	136	114	121
Totals	454	485	554	522	539	518	785	922	1012	1034	883	755

TABLE 4

Total Number of Graduates During the Years 1940-1951 Inclusive

School	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Dalhousie University	12	7	8	11	6	8	0	10	9	6	11	12
McGill University	13	18	9	26	12	13	5	18	15	34	36	37
University of Montreal	23	14	31	18	37	30	41	36	38	45	42	69
University of Toronto	56	45	40	103	61	58	56	75	24	75	168	152
University of Alberta	13	13	32	8	24	7	0	10	13	20	49	25
Totals	117	97	120	165	140	116	102	149	99	180	303	293

For the Year 1951

	Male	Female
Dalhousie University	12	0
McGill University	36	1
University of Montreal	69	0
University of Toronto	152	0
University of Alberta	24	1
	293	2

TABLE 5

Distribution of Undergraduate Students by Provinces and Foreign Countries in the Dental Schools of Canada as of January 2nd, 1952

School	Newfoundland	P.E.I.	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	United States	Br. West Indies	Bermuda	New Zealand	Europe	Totals
Dalhousie University	5	5	28	10	0	0	0	0	0	0	1	0	0	0	0	49
McGill University	4	2	2	5	64	12	4	15	2	11	13	9	1	0	1	145
University of Montreal	0	0	1	9	116	1	1	1	0	9	0	0	0	0	2	140
University of Toronto	0	2	1	1	0	263	10	11	0	10	0	0	0	1	1	300
University of Alberta	0	0	0	0	0	0	4	37	58	18	0	0	0	0	4	121
Totals	9	9	32	25	180	276	19	64	60	39	23	9	1	1	8	755

TABLE 6
Additional Students

	Dalhousie University	McGill University	University of Montreal	University of Toronto	University of Alberta	Totals
*Graduate during 1951.....	0	0	8	22	3	33
**Post-graduate during 1951.....	0	0	12	131	0	143
Dental Nurses 1951-52.....	0	0	0	23	0	23
Student Dental Hygienists 1951-52.....	0	0	0	6	0	6
Is course for Dental Hygienists being planned?.....	Under Serious Consideration	Yes	Yes as soon as possible	Course In Operation	No	

*The term "graduate" means proceeding to a degree.

**The term "post-graduate" means taking a course other than proceeding to a degree.

TABLE 7
Computed Data Respecting Relationship by Percentage and Ratio to Population per Province of Origin of Canadian Students Attending Dental Schools

Students From	% of Students*	Ratio of Students to Population**
Newfoundland.....	1.13	1/39,752
P.E.I.....	1.13	1/10,865
Nova Scotia.....	4.02	1/19,946
New Brunswick.....	3.14	1/20,487
Quebec.....	22.59	1/22,279
Ontario.....	34.63	1/16,530
Manitoba.....	2.38	1/40,622
Saskatchewan.....	8.03	1/12,956
Alberta.....	7.53	1/15,609
British Columbia*.....	10.16	1/14,235

*For calculation purposes in this table the Canadian students in attendance at schools in United States are included in the overall figures. All these Students are attending U.S. Schools near the Province of British Columbia and as a consequence are included in the figures for that province both as to percentage and ratio.

**Population figures used are those supplied by the Bureau of Statistics, Ottawa for the year 1951.

NEWS FROM THE PROVINCES

ONTARIO

The Hamilton Dental Association with a membership of over 100 dentists, has enjoyed a very successful season to date.

Under the able guidance of the President, Dr. J. V. O'Shaughnessy, the Association has held four meetings.

At the initial meeting in October 1951, Dr. R. Lawrence Twible of Toronto was guest clinician. Dr. Twible outlined the fundamentals necessary for success in full denture service. In November the guest speaker was Dr. J. R. Fletcher of Toronto. Dr. Fletcher spoke on "Direct Acrylics in Operative Dentistry." The entire membership present showed keen interest and appreciation for the work of both these gentlemen and their very fine presentations.

On December 18 the Society held its usual Christmas get-together when the Executive and members of the Hamilton Dental Nurses' and Assistants' Association were special guests. John Fisher, well-known Canadian lecturer and radio

commentator was speaker. He related some of the amusing incidents of the Royal Tour, which he accompanied across Canada and to Washington. Dr. Leonard Easter of Dundas rounded out a very enjoyable evening by showing coloured slides of his visit to Mexico.

On January 17 Dr. Paul Losch of Boston, Massachusetts was guest speaker. He spoke on "Dental Pediatrics for the General Practitioner." His paper was very well received.

On Saturday evening, February 2, the Association held its annual dance at the R.H.L.I. Officers' Mess. Special guests for the evening were Dean and Mrs. Roy G. Ellis.

The Executive of the Hamilton Dental Association for the 1951-52 season include:

Past President: Dr. H. C. Thompson.
President: Dr. J. V. O'Shaughnessy.
Vice-President: Dr. D. S. Moore.
Secretary: Dr. N. L. Robinson.
Treasurer: Dr. W. J. Hambley.

Chairman of the Program Committee:
Dr. A. H. Leckie.
Director: Dr. G. W. Spinks.

The London and District Dental Society held its January meeting on the 12th of the month in the Hotel London. There were afternoon and evening sessions, President Dr. Harold Dickson presiding at the dinner meeting.

Guest clinician for the day was Dr. H. E. Brown of Ann Arbor, Mich., a member of the teaching staff, Department of Paedodontia, University of Michigan and a practitioner of Dentistry for children. In the afternoon Dr. Brown presented an illustrated lecture on "Examination, Diagnosis and Treatment Planning for the Child Patient," in which he showed his audience just what happens when a child of three years, or over, presented himself at his office for the first time. Introduction of the child to the office was followed up by treatment on the first and subsequent appointments. Dr. Brown also set forth his views on caries susceptibility and control, stressing the need for close dietary supervision with regard to refined carbohydrates, and a careful and complete home care program.

At the evening session, Dr. Brown presented a paper on "Treatment and Restoration of Fractured Anterior Teeth," dealing with treatment of various stages of fracture in deciduous and permanent teeth and the corresponding restorations for the affected teeth.

About seventy dentists from London and district attended the meeting.

The February meeting of the **London and District Dental Society** was held in Hotel London on February 9, 1952, about 65 members being present. The President, Dr. Harold Dickson, presided. Prior to the business session, a moment of silence was observed in tribute to the late King George VI. The annual report of the Dental Public Health Committee was read by Chairman Dr. Harold Windrim. Another year of progressive activity in the field of Dental Public Health relations was recorded by the Committee.

The guest speaker was Dr. William B. McGuire, head of the Department of Oral Surgery at St. Mary's Hospital, Rochester, N.Y. Dr. McGuire addressed the afternoon and evening sessions on the general topic of "Oral Surgery", assisted by the use of slides and motion pictures. In the afternoon he dealt with malignant and benign lesions encountered in the mouth and the treatment of each. In the evening he discussed the removal of root tips from the antrum, jaw fractures, and operating room technique with use of general anaesthesia.

The speaker was introduced by Dr. D. C. Stiles and thanked by Dr. Dickson.
J. A. Guest

The Essex County Dental Society Bulletin tells of the happenings down Windsor way. During the autumn season Dr. R. Romine, periodontist from Detroit, gave a fine illustrated lecture. Dr. Romine stressed the value of good contact points, contour and good polish to all dental operative restorations in relation to maintaining good health of the periodontal tissues.

Dr. M. J. Gibson, postgraduate student in Oral Surgery at Henry Ford Hospital, Detroit, addressed the members on January 31. His subject was "Diagnosis and Treatment of Oral Carcinomas."

At a business meeting of the Association a resolution was passed favouring the fluoridation of municipal water supply. Dr. Hugh McLaren of Ottawa addressed the members, February 28, on the results of studies that are in progress in connection with the use of sodium fluoride.

The executive members of the society are studying problems that may arise when the Hydro-electric Power Commission change the power frequency from 25 to 60 cycles with particular reference to the effect on dental electric equipment. Dr. Bernie Nolan is doing a good job for his fellow members in publishing a bulletin of information.

The second dinner meeting of the **Niagara Peninsula Dental Association** was held in the Rainbow Salon of the General Brock Hotel on January 11. Dr. W. B. Smeaton, the President, welcomed the guests from across the border and presided over the business meeting.

Dr. G. Nikiforuk from the University of Toronto was the guest speaker and his subject "Dental Caries, Aetiology and Prevention" was enthusiastically received by the largest attendance of the Association to date.

The speaker was introduced by Dr. Lee Honey and thanked by Dr. W. Simpson.

Dr. E. T. Enright, Port Huron Oral Surgeon Addressed the **Lambton County Dental Association** in January, at the Sarnia Golf Club, on the subject of oral aspects of systemic conditions of interest to the general practitioner and included diagnosis, classification, and new methods of treatment of these conditions. Dr. W. Carter also of Port Huron accompanied Dr. Enright and assisted him with his excellent collection of coloured illustrations compiled by Dr. Enright in his own practice and during his affiliation with the Ford Hospital in Detroit.

Dr. W. A. Hartley of Sarnia introduced the speaker while Dr. R. G. Wood, President-elect of the Ontario Dental Association expressed appreciation on behalf of the Society following the lecture. Dr. E. A. Storey of Sarnia, President of the Lambton County Dental Society, conducted the meeting.

N. F. Anderson

At the annual meeting of the **Thunder Bay Dental Association** the following officers were elected: — President, Dr. R. J. Simpson of Port Arthur; Vice-President, Dr. L. E. Hastings; Sec.-Treas., Dr. A. B. Kaukinen.

At this meeting Dr. W. T. McGorman of Port Arthur was made an honorary member in the Association. He is the second oldest practising dentist in Canada, having practised 59 years.

The Toronto Study Club of Dental Technicians held its annual demonstration night on January 9. There were 31 members present with the following giving presentations:—Mr. Brown—Electric Soldering; Mr. Ken Daly—Crown and Bridgework; Mr. Henry Taylor—Immediate Denture Procedure; Mr. Harry Posen—Copper Plating Compound Impressions.

The program of the evening was very worth while and those taking part received a warm appreciation for their efforts.

QUEBEC

DR. N. L. MARTIN was elected president at the 53rd Annual Meeting of **The Montreal Dental Club** held on January 29 in the Queen's Hotel, Montreal. Following a complimentary dinner with 95 members in attendance, Dr. Martin assumed the presidency from the retiring president, DR. C. R. SELLER. Elected to the position of Vice-President was DR. M. L. DONIGAN; other officers elected were:—Secretary—Dr. J. M. Chamard; Treasurer—Dr. F. O. Frederick; Historian and Archivist—Dr. C. C. Bourne; Executive Committee—Drs. R. T. Lamb, R. S. Edmison, D. MacRae, J. A. Macdonald, H. L. Greaves and D. B. Ward.

Honorary memberships were bestowed upon two club members following the completion of thirty-five years in the practice of dentistry: Dr. Paul Rowe and Dr. C. H. Barr; Dr. Rowe was presented by Dr. A. L. Walsh and Dr. Barr by Dr. Dan Macdonald.

Twelve new members were voted on and received into the membership of the Club.

Following the presentation of a successful report on the recent Fall Clinic,

the chairman, Dr. M. L. Donigan led a discussion on the general plans for the 28th Annual Fall Clinic to be held in Montreal next October 22-24.

R. F. H.

"Diseases of the Periapical Tissues, Causes, Diagnosis and Treatment" was the subject presented by DR. L. J. ROSEN to the members of **The Montreal Endodontia Society** at the January meeting of the Society held in McGill University on January 25. Introduced by the president, Dr. Walter Phelps, Dr. Rosen covered the whole field of acute apical periodontitis, acute, chronic and sub-acute alveolar abscesses, granuloma, cysts and referred pain.

The causes of acute apical periodontitis, stated Dr. Rosen, are mechanical, chemical or bacterial and these often occur during root canal therapy; this could usually be avoided by avoiding the apical third of the canal in treatment until one negative culture has been obtained. The diagnosis of such conditions is usually obtained by the history of the case, the x-ray being of little value as often only a slight thickening of the periodontal membrane is noticeable. Relieving the bite is usually indicated in treatment together with thorough rinsing of the canal where bacteria are involved.

Bacterial invasion with the collection of pus is the cause of the acute alveolar abscess which may produce severe local and general symptoms. Tenderness to percussion and severe throbbing over the apical region are the main symptoms and these may be increased by spreading of the infection to involve the neighbouring teeth and soft tissues, even to the extent of osteitis, cellulitis, etc., followed by drainage through the point of least resistance. The diagnosis is often difficult in the early stages, but it will be noted that the offending tooth is not sensitive to cold or electricity, but is sensitive to percussion and is also mobile. Drainage should be attempted through the root canal and through the soft tissues when indicated plus the injection of at least 100,000 units of penicillin-procaine. Following the elimination of the symptoms, the tooth may be extracted or treated as indicated.

The diagnosis of the chronic alveolar abscess is usually made from the x-ray, discolouration of the tooth, large sili-cates, and sometimes the presence of a sinus, percussion sensitivity, etc. With regard to the subacute alveolar abscess, Dr. Rosen feels that this is nothing but a chronic alveolar abscess which "flares up."

The granuloma is caused by a low-grade infection and the x-ray picture shows a distinct rarefaction as compared

to that of the abscess which usually fades into the bone. The majority of the granulomas are sterile although the root canal is infected.

As with the granuloma, cysts are usually sterile and are slowly growing epithelial lined sacs containing fluid which is high in cholesterol crystals. They are usually symptomless, discovered frequently by accident in an x-ray examination, where they are usually easily diagnosable by the well-defined bone circumscribing the area.

In closing, Dr. Rosen reminded his audience of the importance of referred pain, stating that frequently pain from the upper anterior teeth may cause pain or tremor of the eye; that from the upper posterior teeth pain may be referred to the temporal region or the back of the head; and that from the lower teeth pain may be referred to the ear. Also, that the reverse is true.

Following an interesting question period, the speaker was thanked by Dr. E. S. Dorion for his well-planned and admirably presented paper—well illustrated by slides and x-rays.

R. F. H.

La Societe Dentaire de Montreal.—The monthly meeting of La Société dentaire de Montréal was held on January 15 at the Windsor Hotel of Montreal.

The President, Dr. C. A. Durand, opened the meeting by offering the best wishes of the Executive to the membership for the new year.

The speaker for the evening was Dr. Jacques Demers, who had chosen as subject: "The Use of Hydrocolloids as Material of Impressions for Inlays and Abutments." The lecturer outlined the different steps of his technique, which is simple and enables one to reduce the number of sessions at the dental chair for the preparation of wax patterns in the patient's mouth. The abutments or cavities are prepared in the usual manner and an impression of the whole dentition or dental segment is taken with hydrocolloids. The wax is prepared on model cast in Diolite in these impressions. Two impressions are necessary: one for the individual preparation of wax patterns and the other to be used as a master model to which the wax patterns are transferred.

The technique for the impression with hydrocolloids is based on certain definite requisites: cooled impression trays, insertion of pieces of stent in the trays, dry teeth, forcing back the gingiva in cases where the gingival wall of the cavity is lower than the gum line, etc.

The manipulations of the models must be very delicate and require special care.

Coloured slides were used by the lec-

turer to illustrate his presentation which he concluded by demonstrating the equipment necessary for the preparation of the hydrocolloids and the technique with a table clinic.

The lecturer was presented by Dr. Antoine Raymond and thanked by Dr. Yves Lafluer, President of La Société dentaire de St-Hyacinthe.

At the close of the meeting, Dr. Gérard de Montigny suggested that the Société dentaire de Montréal, offer some kind of an ornamental gift to the C.D.A. to be installed at the headquarters.

G. de M.

NOVA SCOTIA

Preventive Dentistry:—At the January meeting of the St. Joseph's Home and School Association of Sydney, Dr. L. G. Israel addressed the Association on "Preventive Dentistry".—Sydney Post-Record.

BRITISH COLUMBIA

Recent action of the Council of the College of Dental Surgeons of British Columbia called for a substantial increase in annual dues from the members. The major part of the increase will be used to establish a fund for the institution of a public relations program, now being laid out by the Public Relations Committee of the British Columbia Dental Association.

A minority group of Laboratory Technicians, smarting under prosecution of several of their members for infractions of the Dental Act, is seeking authority to "sell" dentures directly to the public, to use their own expression. As a result, at their instigation, much misleading and undesirable publicity has appeared in principal newspapers. This situation illustrates well the need for a vigorous and authoritative program of dental health information to be presented to the public, through the various means at our disposal.

The library of the British Columbia Dental Association is in full operation at last, and many calls have been made for selections from the many splendid text books and periodicals on the shelves at Room 218, Medical-Dental Building, Vancouver.

At the afternoon meeting of the Vancouver and District Dental Society, on February 5, Dr. Carl Regli, of the Department of Prosthodontia of the University of Washington at Seattle, lectured on "Clasp Partial Dentures." He dealt with (1) Treatment Planning, (2) Se-

lecting the Path of Insertion, (3) Design Routine and (4) Control of Stress. In the evening, after the dinner, Dr. Regli showed slides and moving picture films, illustrating his lecture on "A Concept of Clasp Partial Dentures."

For the March meeting of the Society, the program committee have been fortunate in securing Dr. Dorothea F. Radusch, Associate Professor of the School of Dentistry at the University of Minnesota. Dr. Radusch is President of the Association of Dental Editors, and is a member of the International Association of Dental Research. She is a Fellow of the American Association for the Advancement of Science, and holds many other active and honorary positions in her field of work. At the afternoon meeting, Dr. Radusch's subject is "Diet and the Child's Dental Health." In the evening, the title of the lecture is "Dietary Influences in Periodontics."

Members of the **Pedodontia Study Club** of the Vancouver and District Society will journey to the mid-winter clinic at Seattle, to present three clinics. Dr. R. I. Yorsh will present "Nutrition in Relation to Caries Control." Dr. J. Vance Touey will deal with "Fractured Anteriors," and Dr. D. MacDonald will demonstrate "Space Maintainers."

The Director of Preventive Dentistry of the Department of Health and Welfare of the Provincial Government gives much credit to the members of the Pedodontia Study Club for their outstanding work in creating and maintaining interest in *Children's Dentistry in British Columbia*. At a recent meeting, where the Director addressed the Study Club on the subject of "The Present Challenge to the Dental Profession in B.C." he was much heartened by the many offers of assistance made by the group to himself and his Division.

ALBERTA

On January 28, **Dr. John W. Clay**, L.D.S., D.D.S., F.I.C.D., LL.D., favoured the **Calgary Dental Society** with a clinic titled "Problems in Exodontia". Dr. E. R. Upton in introducing Dr. Clay paid tribute to his efforts on behalf of our profession saying in part, "Dentistry has gained much because of this gentleman".

Dr. Clay presented a most helpful clinic illustrating his talk with slides and models. Dr. Calvin Waddell, on behalf of the Society, thanked Dr. Clay for his most exceptional clinic.

The Society experienced the largest attendance in years for this clinic. This

in itself was a tribute to the esteem in which the Society places Dr. Clay. As one practitioner said in leaving "Undoubtedly I have heard some of what John said tonight, either personally or at clinics, several times, yet his informal, friendly method of presentation, and the worth of what he says makes me want to hear him many more times".

The Calgary Dental Society held its first bonspiel of the year Jan. 18 at the Glencoe Club. Several six end games were played with Dr. H. Baden Powell winning the honours. Dr. Powell then felt well enough trained to play the position of Vice-Skip on the rink that won the Grand Aggregate and several other prizes and cups in Calgary's 48th Annual Bonspiel with 13 wins to 1 loss.

L. K. B.

Five officers of the R.C.D.C. (R.F.) presented the January program at the **Edmonton and District Dental Society**. Col. W. E. Addinell, A.D.D.S. for Western Command spoke on "The Role of the R.C.D.C. (R.F.) in the Event of National Emergency", while Lt.-Col. W. R. Stuart, Officer Commanding, No. 3 Coy., R.C.D.C. (R.F.) chose as his topic, "The Present Training Program of a Reserve Dental Company". Both of these speakers described the need for maintaining a strong reserve dental corps in times of troubled peace such as we are now experiencing. This most interesting and sobering program was concluded by a series of brief papers on "Atomic, Biological and Chemical Warfare" by Major W. S. Murray, Major G. E. Decker and Captain D. S. Gilmour, all of whom have recently returned from a course at the Army's "A.B.C. Warfare Wing", Camp Borden.

The Dental Society, as well as welcoming the company's splendid offering, extends its congratulations to the local unit as the recipients of the Moore Trophy for having the most efficient reserve force dental company in Canada, (as reported earlier in the journal). The Society takes special and reflected pride in this achievement as all the dental officers of No. 3 Coy. are members of this Society as well.

In the business meeting which followed, the membership defeated a motion to send two observers to future meetings of the Board of Directors of the Alberta Dental Association. The discussion of this motion brought out the need for a good attendance at the Association's revived general meeting and clinic to be held this year in Edmonton, May 28-29.

Plans were disclosed for the annual Ladies' Night, February 22, and mention was also made of progress in connection with the Western Canada Dental Society

convention to be held in Jasper, June 7-11, 1953.

Approximately sixty members were in attendance. J. W. N.

Edmonton Board of Health has approved the proposal to fluoridate the city's water supply.—Edmonton Journal.

SASKATCHEWAN

To Fluoridate Water Supply:—On the basis that the provincial government will provide a grant covering one-half the cost of purchasing the necessary equipment, on January 14 the Moose Jaw City Council authorized the Superintendent of Public Works to proceed with plans for the fluoridation of the city's water supplies.—Moose Jaw Times-Herald.

MANITOBA

The annual election of three members of the Manitoba Dental Association to the Board of Directors resulted in the re-election of Dr. C. S. Robertson of Dauphin and Dr. Gordon Elsey of Winnipeg. Dr. Kenneth M. Johnson of Winnipeg, one of the former members of the Board of Directors, did not stand for re-election, having been appointed by the Board to replace Dr. H. J. Merkeley who had been the representative for the Manitoba Dental Association for several years, on the Board of Governors of the Canadian Dental Association. The third member elected is Dr. Joseph B. Rumberg, Past President of the Winnipeg Dental Society.

Dr. H. J. Merkeley is now the representative of the Manitoba Dental Association on the Dental Council of Canada, formerly called the Dominion Dental Council. **The officers of the Manitoba Board of Directors** are President, Dr. J. M. Grahame; Vice-President, Dr. W. J. Riley; Past President, Dr. J. G. Elsey; Secretary-Registrar and Treasurer, Dr. J. F. Morrison. The Board met on the 14th of January, elected its 1952 officers and adjourned to meet on the 4th of February for the Annual Business Meeting of the whole Association. The Board also decided to celebrate the Jubilee of the Canadian Dental Association on the same date. The Jubilee Meeting was called for the afternoon of the 4th of February and was well attended. The program included a history of Dentistry in Manitoba from 1887 up to date, compiled by Dr. Elsey, Past President. Dr. Elsey's difficulty in the compilation of the facts was to keep it down so that it could be read out loud in about an hour and a quarter. Dr. Elsey succeeded in

doing this and every minute of the delivery was full of interest and was well received by his audience. Dr. Elsey is to be congratulated on his success. It meant weeks of hard concentration reading over the minutes of approximately seventy years, and then condensing the same to 75 minutes' reading time. Parts of this history will be included in the Jubilee issue of the Journal of the C.D.A.

Another interesting part of the celebration was the presentation to the Canadian Dental Association, from Manitoba, of a **Gift Picture** to be hung on the walls of the Headquarters Bldg. of the C.D.A. in Toronto. Dr. K. M. Johnson, the representative from the Manitoba Dental Association on the Board of Governors of the C.D.A., received the Gift on behalf of the C.D.A., and after thanking the Manitoba dentists for their thoughtfulness he gave a résumé of the development of the Canadian Dental Association from the time of its first meeting called in Montreal to consider the organization of a National Dental Body. Approximately 200 dentists from all parts of Canada were present at this inauguration meeting, three of them from western Canada including Dr. S. W. McInnis of Brandon and Dr. W. D. Cowan of Regina. The expansion of the Organization was gradual for some years but had a setback during the first world war. It was reorganized in the twenties and now has five thousand members with a handsome Headquarters Building in Toronto, the gift of the dentists of Canada. That is more than the Canadian Medical Association can boast about.

Following the Jubilee Meeting a dinner was held and addressed by Dr. H. M. Malcolmson of the Department of Health and Welfare on the role of the dental profession in Civil Defence.

After Dr. Malcolmson's address the annual meeting of the Manitoba Dental Association was convened with Dr. Elsey the president for 1951 presiding. The usual committee reports were heard including that of the Dental Public Health Committee. The fluoridation of communal water supply has been investigated by the Winnipeg Dental Society for the past year and a survey of the Winnipeg school children showed approximately 96% of the children had dental caries. As a result of these investigations the Society has recommended to the City Health Officer that the Winnipeg water supply be fluoridated. This matter came before the Dental Association's meeting and a resolution was passed as follows:

Recognizing that dental decay is a recurrent problem increasing in cost due to causes beyond the control of the profession, we the Manitoba Dental Asso-

ciation in annual meeting assembled wish to go on record as favoring the fluoridation of communal water supply under proper control and supervision.
J. F. M.

The January meeting of the **Winnipeg Dental Society** was an unique experience. The lecturer was Dr. Harry Sicher of Loyola University, Illinois. His subject is anatomy. His lecture was about "Functional Anatomy of the Temporomandibular Joint" and "Pathology of Temporomandibular Joint and Problems of Pain."

There has been so much printed about this joint that dentists have come to regard it from just one point of view, particularly those who make full dentures: "What curve or plane shall the posterior teeth be set at?" It was no doubt expected by many and hoped by some that Dr. Sicher would have a simple rule or method to determine this. It was in the writer's mind all morning and afternoon. When is he coming to the curve

of Spee? Well, he never mentioned it! And yet the large audience of the morning session came back with others for the afternoon one. Why? He is an Austrian. His English betrayed his origin so that one was forced to concentrated attention to get all he said. In spite of this handicap many were heard to remark that they came for the morning session with no notion of returning for the afternoon session but later stated that they would not have missed it for anything. I think it was the fascinating and masterly manner in which he could use the black board with several colours of crayon to show up the anatomy of what he was talking about at the moment that had the appeal. This together with his running comments on his subject were so convincing there was never any doubt he knew what he was talking about. He could come back again any time and have the same audience with increased numbers. What a clinician!!

Dr. Orwell Brown, President of the Society, presided at both sessions.

J. F. M.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

Shortage of X-Ray Films:—The British Ministry of Health stated recently: "There is a serious world shortage of x-ray films due to increasing usage in all countries. In this country usage during the first six months of 1951 was 16% greater than in the corresponding period of 1950 and was at a rate about 60% greater than in 1947." Since the spring of 1951 this shortage of films, and the position of all those who use them, has been deplorable. An agreement between the manufacturers has just been reached by which an allocation is to be made to hospitals according to previous consumption. A radiologist in private practice will receive a percentage of his "usage" which will leave him with time to devote to his hobbies. Clearly an x-ray department would have difficulty in maintaining an efficient service on approximately 40% of its film supply, and the cuts at some hospitals may approach this.—Br. Med. Jour.

Airbrasive Technique:—The following is a letter written by C. de Vere Green to the Editor of the British Dental Journal.

"It would seem that from statements occurring in the daily press and from the interest of the dental profession that

airbrasive machines may become an essential unit of the dental practitioner's equipment.

"Having just returned from the 92nd Annual Convention of the American Dental Association in Washington I feel that some correction of this attitude is necessary for I found that in the United States the use of the airbrasive technique in cavity preparation was rapidly falling into disuse. I had an opportunity of trying out one of these machines myself and found that not only did it make a noise which resembled that of a blast furnace but it proved to be no more rapid than sharp burs or diamond stones. The number of men who are disposing of their airbrasive machines and the very small number entering in the special courses compared to the enthusiasm shown twelve months ago made it evident that this technique is falling into disuse."

Dental Disease among 14-Year-Old London School Children:—Drs. May and Helen Mellanby report in the British Medical Journal of January 5, 1952 on the mouth condition of 14-year old London school children in 1947 and 1950. The summary is as follows:

Two surveys of 14-year old London County Council school children from modern, technical, and grammar schools

provide the clinical material for this paper. The inspections were made with a probe and mirror.

The proportion of children found to be free from caries, according to the standards used, was 11.5% in 1947 and 16.1% in 1950. A total of 14.6% of the teeth in 1947 were carious, whereas for 1950 the figure was 13.9%.

Only small differences were found between the two surveys as regards the amount of caries in the different types of teeth, but in 1950 more upper incisors and fewer first molars were carious than in the first survey.

The amount of treatment (fillings and extractions) which the teeth had received is briefly considered. An overall reduction of 5% was noted in 1950 as compared with 1947.

Some degree of gingivitis was found to occur in 73.7% of the children examined in 1947 and in 85.1% of those seen in 1950. That this is a common finding in this age group is substantiated by figures for other surveys.

Tartar deposits were frequently found, and there appeared to be some relation between the amount of tartar and the incidence and extent of gingivitis.

Dentist Sentenced to Imprisonment:— John Hargreaves of Sheffield was sentenced to six months' imprisonment at

Leeds Assizes on December 7, after pleading guilty to five charges of having obtained payment on dental estimates forms by falsely stating that general anaesthetics had been administered to patients by doctors.

It was pleaded on his behalf that, as a result of falls, he had lost the effective use of one arm and did not want to disclose that he had not extracted the teeth under "gas," because he did not want to convey the impression that he had lost his capacity to do so.

Mr. Justice Pearson said the offences were very serious. It was most important to protect the integrity and probity of the Health Service because professional men were certifying about their own work.—Br. D. Jour.

Since treatment has been placed on a scientific basis, the cry has been for **Early Diagnosis**. The one hope of success in the treatment of such conditions as tubercular and malignant diseases lies in early detection . . . it may well be that the general practitioner is rendering most service to the community when he is seeing large numbers of people all with seemingly trivial ailments provided he is able to filter from them those few whose condition merits further investigation.—The Lancet.

GENERAL NEWS

Americans are now receiving almost **Twice As Much Dental Care** and at a proportionately lower cost than they did 15 years ago, according to The Journal of the American Dental Association.

The Journal report was based on an estimate of the U.S. Department of Commerce that nearly a billion dollars was expended for dental care in 1950 as compared with \$320 million in 1935.

The increase in dental care was attributed to a growing demand for dental service and a population growth of 23 million in the past 15 years.

"The dental profession has not only been able to keep up with the growth in population but in 15 years actually has almost doubled the amount of dental care being provided per capita," The Journal said.

Even though services have increased nearly 100 per cent, Americans in 1950 spent less of their total income for dental care than they did in 1935.

The Journal pointed out that costs of dental care increased 56.8 per cent in the 15-year period while the cost of living rose 72 per cent. In 1935, payments to

dentists amounted to 0.54 per cent of all consumer expenditures against 0.51 per cent in 1950.

The Journal estimated that more than 60 million persons received dental treatment in 1950 and that the average dental bill per patient was \$16.50.

A recommendation that **Parents Should Stay Out Of The Dentist's Operating Room** while their children are receiving dental treatment has been made in The Journal of the American Dental Association.

Dr. Frank L. Lamons, chairman of the department of orthodontics at Emory University School of Dentistry, and Dr. Mary Lynn Morgan, both of Atlanta, Ga., said parents should be informed fully about the conditions of their children's mouths and the treatment needed. But they added:

"Departure of the parents from the scene of action brings miraculous results in every instance of behaviour difficulty. Although there is no apparent behaviour problem, the dentist's relationship with

the child and the parent will be a happier one."

In the opinion of the Atlanta dentists, if a child is impudent or resentful, the behaviour problems should be settled between the dentist and the child.

"Children expect their parents to reprimand them, but when the dentist copes with the behaviour problem and parental reprimand is not forthcoming, then the dentist has made a friend," they said.

They explained the importance of dental health education of parents.

"A parent needs specific education as to the conditions in the mouth of his own child, conditions as observed at the present and those in the foreseeable future," they said.

This information, they added, should not be given to the parents in the presence of the child.

Dental Evidence in the Reconstruction of Crime is the title of a paper by Keith Simpson, M.D., in the November 6 issue of the British Dental Journal. He shows how injuries affecting the face and teeth may permit some kind of reconstruction of crime investigation. The accompanying picture is an illustration of how the possible occupation of an individual can be determined by the teeth. The picture shows the two central incisor teeth in the upper jaw of a hairdresser who had for many years been in the habit of putting the loop of a hairpin against the upper teeth. As a result there had been the linear erosion which can be seen.



Erosion of central incisors caused by holding hairpins in the mouth.

The average length of life in the United States has increased to a record high of nearly 68 years, Federal Security Administrator Oscar R. Ewing announced recently. The new figure is based on final 1949 vital statistics compiled by U.S. Public Health Service, and shows a gain of almost half a year over the average lifetime indicated by 1948 death rates.

Life Span of Leukocytes in Human: — As the result of certain research work Doctors Kline and Clifton of Yale University School of Medicine report in Science magazine that the life span of leukocytes in humans is 12.8 days. These workers believe that it does not appear likely that lymphocytes and eosinophils are completely different in their life span.

Vitamin D Intoxication — It may be easier to disturb the calcium balance of the body by well-meant treatment than is generally thought. It should be realized that highly potent preparations of vitamin D or irradiated sterols may be bought without prescription and taken over long periods with harmful results. It has been pointed out by certain workers that many vitamin D preparations on the market contain as much as 50,000 units in each dose. Susceptible adult patients may show toxic signs after taking this dose for a period as brief as a few weeks. — The Medical Journal of Australia, August 1951.

The Journal of the A.D.A. reports 4731 **Ethical Dental Laboratories** in 36 States and an estimated 5600 in all States. It also reports 10,815 dental technicians employed by ethical laboratories in 30 States and an estimated 19,300 in all States.

More Communities in U.S.A. Take Favourable Action on Water Fluoridation Process:—By the end of 1951 it was reported that approximately 159 communities had installed water fluoridation equipment. Later reports show that favourable action on fluoridation has been taken in many additional communities.

San Diego may become the first large city in California to fluoridate its water supplies since operation is scheduled to begin as soon as technical plans have been approved. In San Francisco, the measure, although approved, cannot be put into effect before April 1, 1952.

Topeka and Junction City of Kansas are said to be in the advanced stages in planning fluoridation.

The city of Baltimore, Maryland expects to begin fluoridation for its nearly 1,000,000 citizens early in February.

Ann Arbor's residents started 1952 with their drinking water containing the optimum amount of fluoride.

A total of 103 communities in Wisconsin have approved fluoridation.

Madison, Wisconsin, Reports After 3½ Years' Fluoridation:—In 1947, the average number of decayed units per child was 8.14.

After 3½ years of fluoridation, in 1951, the average was 4.23 or 48% less decay than before fluoridation.

In 1947, Madison-West showed 25.56% of the children "caries free."

In 1951, Madison-West showed 46.76% had never had a cavity or an improvement in the "caries-free" category of 83%.

In order to further compare these decay rates it is necessary to examine the record in a city which does not have fluoride in its water, Stevens Point, a "fluoride free" city where in 1950 a survey using the same basis of caries evaluations as were used in Madison, showed the usual deplorable dental conditions characteristic of low fluoride communities. Stevens Point—206 kindergarten children—13.00 decayed units per child as compared to Madison-West—216 kindergarten children—4.23 decayed units per child or more specifically, Stevens Point kindergartners have more than 3 times as much decay as the Madison-West kindergartners.—*Jour. Wisconsin D. Soc.*

Dental Magnifying and Illuminating Device:—Dr. C. A. Levinson of Boston, Mass., has invented a device by which the dentist can obtain a magnified view of the interior of the patient's mouth while at the same time the patient sees a reflected image of the interior of his mouth from the same magnifying glass, which image is an exact duplicate, except for size, of the magnified view seen by the dentist.

The patient can watch the dental operation being performed which, Dr. Levinson believes, gives the patient a better understanding as to what the dentist is doing and that this is good psychology.

Airbrasive Grinding of Teeth:—The Editor of the New York Journal of Dentistry states in the February issue that the use of steel burs by dentists in shaping cavities in teeth prior to inserting fillings and inlays will not soon be displaced by the Airbrasive Method, as formerly believed. It is further stated that this method has disclosed limitations in its use which still have to be overcome before the technique can find universal application in preparing teeth for filling.

Penicillin Dentifrices:—A proposal to issue a new report on penicillin dentifrices has been adopted at a meeting of the A.D.A. Council on Dental Therapeutics. In taking the action the Council said recent evidence indicates "cause for some concern" regarding the possible development of resistant strains of micro-organisms in the mouths of individuals using penicillin dentifrices.

National Health Insurance:—Describing voluntary health insurance as "our greatest bulwark against socialized medicine," Dr. John Cline, president of the American Medical Association, acknowledged December 4 that the best type of health insurance remained a matter of uncertainty. The very diversity of ideas on the subject, however, "creates a healthy situation," he asserted. He suggested that the problem be left to "the orderly process of evolution."

Addressing the association's House of Delegates, policy-making body, at the opening of the organization's four-day clinical session, the San Francisco practitioner reported that more than 77,000,000 persons in the United States now had "some (insurance) coverage against the costs of illness. We must not only expand the numbers enrolled but improve our plans," he added. "The exact direction which the improvement should follow is not equally clear. No one can say what will constitute the most desirable coverage in the future.

"The multiplicity and diverse nature of the plans creates a healthy situation. The very elasticity of the programs permits and encourages experimentation. The orderly process of evolution will produce a form which at some future date will be generally agreed upon as embodying the most nearly ideal type of coverage. This process," he declared, "will not be limited by the legal enactments or the arbitrary decisions of Government agencies inherent in any scheme of socialized medicine."

Declaring that "the next year will be one of important decision," Dr. Cline urged that the association's 107,000 members do their utmost to arrest the nation's "progress toward socialism."

Dental Health in Schools:—The Superintendent of Neenah Public Schools, Wisconsin, sent the following letter to the parents of all school children in his district.

"We are trying to plan a good health program for the boys and girls in our schools and we need your help.

"A part of our health program deals with dental health. It has been proven that eating sugar in the form of candy,

colas, pop, frosting, etc., will cause teeth to decay more rapidly. We believe that we in the public school have a responsibility for teaching children about good dental practices and that a part of good teaching is setting an example. Therefore we want to cut down on the amount of sweet foods which are eaten in our schools. Upon recommendation of last year's Health Committee and with approval of the Board of Education, we want you to know of our plans for your child.

"Beginning now we will no longer let children bring birthday treats to school. In recent years the number of children bringing such treats has grown so that it is difficult to handle. Some grades as a result, have several treats a week. As a part of our health program we want to eliminate this kind of between meal eating in school of sweet foods.

"We will continue our parties at holiday time: Hallowe'en, Christmas, and Valentine's Day, feeling that there is a definite social value in such activities. On the kindergarten level the teachers may want to plan additional social experiences. Foods from the approved list should be selected for the refreshments. However, the party idea should come from the teacher. Our only change in regard to these parties is that we expect that teachers, parents, and children will work together to plan refreshments to include foods from this approved list.

Tomato juice, pineapple juice, grape juice, cider, white milk, ice cream, unfrosted cookies or unfrosted cupcakes, sandwiches (any kind except jelly), pretzels and graham crackers, apples, bananas, grapes, carrot sticks, celery sticks, pop corn, peanuts or other nuts.

"Another policy adopted by the Board of Education is the elimination of candy and gum from our schools. Please do not permit your child to bring gum and candy to school as we want to encourage good health practices through this policy.

"We believe that you will be pleased with our efforts to protect the dental health of your child and we thank you for your cooperation."—*Jour. of Wisconsin D. Soc.*

Fees to Organized Dentistry:—The President of the First District Dental Society of New York points out in the *N.Y. Journal of Dentistry* that all members of organized dentistry must pay \$20.00 to the American Dental Association. "The good resulting from the use of these funds cannot be readily appreciated, because by the time it filters through to the individual contributor, the impact is not immediately felt.

Nevertheless, the value of the parent organization should not be underestimated, because, from the unity of interests comes the strength of professional progress."

The president of the American Dental Association has listed **Four Rules of Dental Health** for the nation's children.

1. A well-balanced diet with consumption of sweets kept to a minimum. It is the sugar that is the prime cause of dental decay.

2. Proper toothbrushing habits that should be learned early. This means brushing the teeth within 10 minutes after eating.

3. Early detection and treatment of dental disease. This will prevent larger dental ills later on. Neglect may produce serious dental problems which will continue throughout life.

4. Either access to drinking water from a community water system containing the proper amount of fluorides for tooth decay prevention or application of sodium fluoride to the child's teeth at periodic intervals. Children who drink fluoridated water from birth have from one-half to two-thirds less tooth decay than those who drink fluoride-free water.

Fee-Splitting:—The Board of Regents of the American College of Surgeons November 9 adopted a report condemning prevalent forms of fee-splitting, including what is known as 'ghost surgery.' In 'ghost surgery' the patient does not engage and never even knows the real operating surgeon, who is secretly engaged by the patient's doctor and arrives after the patient has been anesthetized. The patient is led to believe that the operation was performed by his family physician, who splits the fee with the 'ghost surgeon.'

Other practices defined as fee-splitting are the following: (1) Payment by a physician or surgeon of part of his fee to the referring physician. (2) Payment of a salary by a clinic or a private physician to another physician for sending patients to that clinic or physician. (3) Acceptance by a physician of a rebate, commission or 'kickback' on charges made by a company for an appliance, test, or medicine that he has ordered for his patient. (4) Payment by the surgeon to the referring physician when the latter acts as an assistant at the operation, gives the anaesthetic or provides post-operative care for the patient. On the last point, the report said 'such a subterfuge is not necessary to justify adequate remuneration of the referring physician for his medical responsibility to the patient. However, in the absence of a qualified surgical

assistant or resident, the practice of having a referring physician not specially trained in surgery assist with the operation is not considered unethical, providing each physician sends his own bill.'

The report recognized that the general practitioner, who was customarily the referring physician, frequently did not get proper recompense for his initial role in taking care of the patient and strongly urged that surgeons emphasize to the patient the great value of good medical judgment in making the original diagnosis and carrying out preliminary medical treatment. The report asserted that overcharging by the surgeon was not only unjust, but 'moreover, it encourages fee-splitting because the patient's financial reserves are so depleted that the referring physician cannot be paid adequately for his medical services.'

The surgeons should be educated to the fact that the surgeon's fee should be limited to the patient's ability to pay and the amount determined, in part, by other medical expenses. The surgeon should consult more freely with referring physician in regard to the patient's ability to pay. —New York Times.

• **Thumb-Sucking and the Dentition:—**

In a serial study of 60 children who were followed continuously from birth, J. H. Sellman, M.A., D.D.S., reports in the New York State Dental Journal of December 1951 his conclusion about thumb-sucking.

He concludes that thumb-sucking is barely or not at all harmful when the occlusion is good. However, when there

is poor occlusion and prolonged sucking, particularly when there is parental interference, the occlusion is affected. He also emphasizes the fact that during the eruption of the deciduous dentition there is a physiologic urge to bite, which is part of oral development and should not be interfered with. If thumb-sucking persists after the completion of the deciduous dentition it may then be indicative of a psychologic need.

•
Children Sitting or Standing in the Front Seats of Automobiles are in the most dangerous position in cars and frequently their teeth are fractured by hitting the dashboard at sudden stops.

Dr. Henry Marsh Wilbur, associate professor of children's dentistry at the University of Louisville School of Dentistry, made that statement in The Journal of the American Dental Association.

He added that front seat passengers in autos suffer injuries, especially to their mouths and teeth, three times more frequently than drivers.

Dr. Wilbur cited recommendations of experts that crash pads be installed on dashboards to protect children and other front seat passengers from violent impact with knobs and protuberances.

"It is important that parents be informed of the necessity for professional attention as soon as an accident involving the teeth occurs," he said.

Splints may be applied to a block of teeth which have been fractured or a single tooth which has been loosened, and other treatment may be given as the case demands, Dr. Wilbur declared.

IN MEMORIAM

Charles Harold Clarkson of Toronto, aged 76, died on January 29.

Dr. Clarkson was graduated from the college of Dentistry of the Royal College of Dental Surgeons of Ontario in 1904. He had practised continuously in Toronto except for the three months' military service in 1915.

He was treasurer of the Toronto Dental Society from 1909 to 1911. He was professor of Materia Medica and Pharmacology in the Dental College for five years. He was a Mason, and was fond of tennis, golf and bowling; he was a member of the Chatten Club and the Ontario Dental Association.

Dr. Clarkson was a member of the United Church.

He is survived by his widow and three daughters.

Alma Lillian McEwen of Toronto, aged 53, died on January 11.

Dr. McEwen was graduated from the College of Dentistry of the Royal College of Surgeons of Ontario in 1923. She conducted her dental practice in Toronto from graduation until 1940 when she gave up private practice. She has been a part-time member of the city of Toronto school dental staff and for the past ten years has been in charge of the dental services at the Alexandra Industrial School for girls.

Dr. McEwen was an active member of Beaches Presbyterian Church and the Women's University Club. She was secretary-treasurer of the Dental Alumnae in 1939-40.

She is survived by three sisters.

IN MEMORIAM

Hiram Horton Kirby of Hawkesbury, Ontario, aged 69, died on January 19.

Dr. Kirby was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1905 and had practised in Hawkesbury.

Dr. Kirby was a prominent citizen and a former mayor of this Valley Community. He was Coroner for Prescott from 1914-40. He was a warden and active member of Holy Trinity Church. He was a life member of Hawkesbury Lodge A.F. and A.M. and for many years its secretary. He was District Grand Master of Eastern District in 1919 and was an active member of the Memorial Shrine Club.

He was an ardent curler; in 1938-39 he was president of the Canadian Branch of the Royal Curling Club; he received the singular honour of being named a Vice-President of the mother club in Scotland.

Dr. Kirby had wide community interests in church, municipal and school affairs as well as fraternal associations. His passing is a great loss to the people among whom he gave freely of his talents and energies.

He is survived by his widow and four daughters.

Lister Hugh Cameron of Antigonish, Nova Scotia, aged 53, died suddenly from a heart attack on January 18. He was graduated from the Royal College of Dental Surgeons of Ontario in 1923.

During World War II he served in the Royal Canadian Dental Corps with the rank of major.

He was an active member of the Knights of Columbus and also took an active part in civic affairs.

The large funeral procession, headed by the Antigonish Highland Society Pipe Band, numbered among them members of the Canadian Legion, the Knights of Columbus and a large representation of the clergy, including His Excellency Most Rev. John R. MacDonald, Bishop of Antigonish, bore testimony to the esteem in which he was held by the entire community.

Dr. Cameron is survived by two sisters.

Lorne Main Winter of Galt, Ontario, aged 55, died on October 23.

Dr. Winter was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1923. He had practised continuously in Galt.

He served with the 55th Battery C.F.A. during the First Great War. He was secretary-treasurer of South Waterloo Dental Society for five years, 1928-1933, and vice-president for two years following. He was a member of the Waterloo County Golf and Country Club and a director of Galt City Club.

Dr. Winter is survived by his widow, one son and one daughter.

Wendell Cecil Carruthers of West Saint John, New Brunswick, aged 54, died suddenly at the Carleton Curling Club on January 17.

He was graduated from the University of Alberta in 1924 and practised in West Saint John for 23 years and for many years served part time in Lancaster Veterans' Hospital. Later he became a full-time operator at that institution.

He served overseas in the First World War with the artillery.

DIRECTORY

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Matters relating to the publication of manuscripts or news items for the English Section of the Journal should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

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All changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

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Préparation et applications diverses des coiffes

par GUY LE FRANCOIS, D.D.S., Montréal

L'éducation dentaire de notre population se poursuit sans cesse et répand ses bienfaits dans tous les milieux.

Nos patients, plus éveillés aux possibilités de notre art, sont plus soucieux de l'apparence de leur denture et deviennent plus exigeants pour l'esthétique des restaurations que le dentiste est en mesure de leur apposer. La reconstitution et la correction d'un segment d'arcade ne s'accomplissent pas aujourd'hui comme la chose se pratiquait il y a une trentaine d'années. Autrefois, le public ne détestait pas les obturations ou les couronnes en or; de nos jours, le goût s'affinant, nos patients demandent des substitutions qui se rapprochent le plus possible des dents naturelles.

La méthode de choix pour satisfaire aux désirs les plus légitimes de nos clients nous paraît être la confection des coiffes de porcelaine ou d'acrylique.

Cependant, en plus du point de vue esthétique, il est un aspect encore plus important à considérer, et c'est la résistance et la permanence de la restauration. Pour répondre à toutes ces exigences, une coiffe doit posséder les qualités suivantes:

1. apparence aussi naturelle que possible, tant par l'harmonie des couleurs que par la forme extérieure.

2. Résistance à tous les chocs masticatoires ainsi qu'à tous les mouvements d'articulation.

3. Tolérance des tissus gingivaux.

4. Parfaite adaptation, c'est-à-dire, scellement étanche de la coiffe à l'épaule-ment.

Avant de traiter de la confection de la coiffe elle-même, il serait opportun de faire une brève révision de la technique de la préparation de la pile. Une coiffe parfaite exige une pile adéquate.

Classification des piles

A—Avec épaulement:

1. Epaulement uniforme sur toute la périphérie: pour les dents normales.

2. Epaulement complet, mais d'épaisseur variée: pour les dents croisées.

3. Epaulement sur une seule face: pour les dents malformées.

4. Epaulement sur deux faces: pour les dents triangulaires.

5. Epaulement sur trois faces: pour les dents minces au collet (mésialement ou distalement).

B—Avec ébauche d'épaulement:

Pour les dents coniques et petites.

C—Sans épaulement:*

1. Pour les dents déracinées.

2. Pour les incisives inférieures.

3. Pour les dents fracturées, chez les jeunes.

4. Pour les piliers de pont, sur pré-molaires et molaires.

*Pour les dents courtes, il est avantageux de faire une rainure mésiale, distale et incisive, comme s'il s'agissait d'une couronne trois quarts.

Préparation de la pile:

En suivant une technique bien définie, à l'aide de pierres de diamant à grande vitesse, avec jet d'eau froide constant, une pile de coiffe peut se préparer dans peu de temps, sans endommager la pulpe.

Technique:

(Voir schéma no 1)

1. Bord incisif jusqu'à la limite de la pile finale, en inclinant la pierre linguement.

2. Bord mésial jusqu'à l'épaulement final.

3. Bord distal jusqu'à l'épaulement final.

4. Linguement, faire disparaître la couche d'émail de la moitié incisive, en contrôlant parfaitement l'occlusion et tout mouvement d'articulation.

5. Tracer l'épaulement tout le tour, en suivant le contour gingival, et s'arrêtant en-dessous de la couche d'émail.

6. Enlever l'épaisseur d'émail labiale-mment, et la couche d'émail qui reste à la moitié gingivale, linguement.

7. Pousser l'épaulement et polir.*

3. Prendre l'empreinte de la pile, sans pousser la douille trop loin en-dessous de la gencive, car, alors, on produirait un décollement des fibres gingivales.

4. Enregistrer l'articulation.

5. Prendre l'empreinte de la pile et des dents voisines avec plâtre ou Plastogum, sans mettre de cire autour de la pile; cette dernière façon de faire amène souvent une malposition du modèle d'amalgame.

Empreinte pour coiffe sans épaulement:

Ajuster parfaitement la douille en suivant exactement le contour désiré, polir et festonner.

Quand on coule le modèle d'amalgame, le contour laissé par la douille, sert de limite à la coiffe.

Modèles:

1. Couler un modèle d'amalgame dans la douille, ou, ce qui est encore mieux, se servir de la méthode du contre-plaqué de cuivre ("copper plating"); ce modèle permettra un polissage parfait de la coiffe directement sur le modèle; cela ne peut

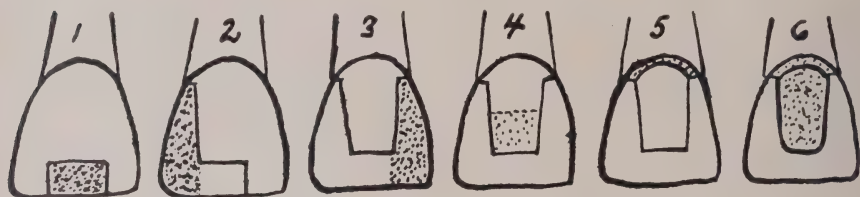


Schéma no 1

Prise d'empreinte:

1. Ajuster parfaitement une douille de cuivre découpant exactement le contour de l'épaulement.

Pour choisir une douille de la grandeur appropriée, il suffit de se servir d'un dentimètre et d'enregistrer parfaitement la dimension autour du collet de la dent.

2. Ramollir le stent dans l'eau chaude.

se faire sur le modèle d'amalgame, sans endommager ce dernier.

2. Placer le modèle d'amalgame ou de cuivre dans l'empreinte de plâtre.

3. Couler en pierre artificielle.

4. Couler le contre-modèle en plâtre dans la cire d'articulation.

Classification:

A—Couronne individuelle:

1. porcelaine et acrylique combinés.
2. or et acrylique combinés.

1. Porcelaine et acrylique combinés:*

a) Avantages:

*L'épaulement ne doit pas être poussé plus qu'un demi-millimètre en dessous du bord gingival; une exagération dans ce sens produit un décollement des fibres retenant la gencive à la racine et une irritation, qui se traduira par les lésions gingivales suivantes: gingivite, pyorrhée, retrait de la gencive, etc.

1. parfaite adaptation de la porcelaine
2. rigidité de la porcelaine
3. apparence naturelle de l'acrylique
4. plus grande résistance.

b) Processus pour porcelaine et plastique combinés:

(Voir photo no 1)

1. Préparer une matrice de platine sur le modèle d'amalgame.
2. Fabriquer un "thimble" de porcelaine recouvrant tout l'épaulement.
 - a) Porcelaine à haute fusion: en choisir la couleur.
 - b) Ajouter la poudre à l'eau jusqu'à consistance crèmeuse assez liée.
 - c) Placer la porcelaine sur la matrice de platine, toujours en descendant.
 - d) Avec un papier absorbant (Kleenex), enlever un peu d'eau pour que la porcelaine adhère et en ajouter ainsi, petit à petit, en enlevant toujours l'excès d'eau, jusqu'à ce que tout l'épaulement

et toute la pile soient complètement recouverts d'une couche uniforme.

- e) Chauffer le fourneau à 1, et augmenter graduellement la chaleur jusqu'à 1400, (10 minutes) en laissant la porte ouverte pour l'échappement des gaz.
- f) Fermer la porte hermétiquement et monter la chaleur à 2250 (5 minutes).
- g) Laisser à cette température pour 5 minutes.
- h) Monter ensuite la température à 2400, et aussitôt, fermer complètement la fournaise.
- i) Enlever le "thimble" du fourneau et le laisser refroidir dans le réchaud pour 7 à 8 minutes.
- j) Plonger dans l'eau froide.
- k) Enlever la matrice de platine.
- l) Ajuster sur le modèle d'amalgame.
- m) Rendre rugueux le "thimble" avec la meule de diamant, pour l'ad-



Photo no 1

*Désavantage des coiffes uniquement en acrylique:

Le méthacrylate de méthyle est une substance élastique cimentée avec une substance forcément rigide, qu'est le ciment.

Sous les forces de la mastication, le plastique cède et se décolle du ciment; la salive s'infiltre et laisse paraître, par transparence, un cerne bleuâtre au collet de la dent.

Désavantage des coiffes uniquement en porcelaine:

Autrefois, les coiffes étaient confectionnées uniquement de porcelaine pure: elles étaient très résistantes, mais leur manque de transparence leur donnait une apparence artificielle.

Aujourd'hui, on ajoute de la silice à la porcelaine pour obtenir la transparence tant désirée; plus on ajoute de silice, plus la dent est belle, mais plus elle devient fragile. En d'autres termes, ce que l'on gagne en apparence, on le perd en résistance.

hérence de l'acrylique.

3. Sculpter la coiffe désirée en cire sur le "thimble".

4. Couler en Diolite, l'intérieur de la coiffe ainsi cire.

5. Mettre une tige (petite vis de cuivre) pour que le pilier ne cède pas sous le pression du moufle.

6. Investir, faire fondre la cire, bourrer avec l'acrylique de la couleur appropriée.

La nuance exacte de la couronne est difficile à obtenir; il est à conseiller de

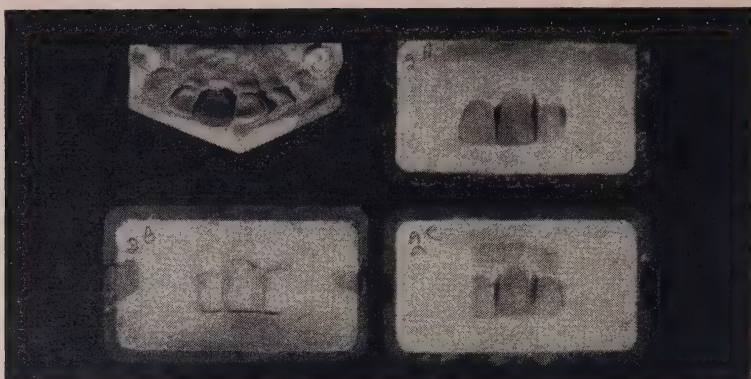


Photo no 2

se préparer une gamme personnelle, et choisir la couleur en bouche avec cette gamme.

7. Ajouter transparent ou marques caractéristiques.

8. Cuire:

a) monter la température graduellement.

b) bouillir durant 20 minutes.

c) laisser refroidir dans l'eau.

9. Réjuster sur le modèle d'amalgame ou de cuivre.

10. Polir: il est important de bien lustrer l'acrylique pour éviter l'adhérence de la nourriture et des taches de fumée ou de rouge à lèvres.

(Voir photo no 2)

2. Or et plastique combinés:

(Voir photo no 3)

a) usages:

1. Quand l'articulation est très

serrée.

2. Pour les prémolaires et les molaires.

3. Pour tous les piliers de pont.

b) technique:

1. Cirer avec cire à incrustation sur le modèle.

2. Investir et couler en or platiné.

3. Laisser l'or partout où il n'est pas apparent.

4. Faire des tiges et des marques de rétention pour l'adhérence de l'acrylique.

5. Peinturer avec une substance opaque pour abolir les reflets sombres de l'or au travers l'acrylique.

6. Cirer et procéder comme à l'ordinaire pour l'acrylique.

(Voir photos nos 4 et 5)

B—Piliers de pont:

(Voir photo no 6)

Il est recommandable de toujours



Photo no 3



Photo no 4

utiliser l'or et l'acrylique en suivant la technique de la coiffe isolée.

Il est très important de prévoir la fracture possible des dents postiches et de pouvoir les remplacer facilement. Une seule barre métallique servant d'armature avec dent postiches uniquement d'acrylique n'est pas suffisante; cette méthode ne peut donner une restauration permanente.

Variété:

Or et "veneer" d'acrylique détachable, avec crampe de métal clouant la coiffe au pilier:

a) Couler la coiffe en or comme pour une coiffe ordinaire, en or et acrylique combinés.

1. Si l'épaisseur se compare aux dents voisines, on laisse l'or du côté labial.

(Voir photo no 7)

2. Si l'épaisseur n'est pas suffisante, on ouvre une fenêtre labialement, mais il faut absolument laisser une bande d'or couvrant tout l'épaulement au collet.

(Voir photo no 8)

b) Quand le pont est en bouche, percer avec fraise à fissure un trou mésialement et distalement au pilier de la coiffe, moitié dans l'or et moitié dans la dentine, et à mi-chemin entre l'épaulement et le bord incisif de la pile.

c) Ajuster une crampe avec fil de platine, en plaçant ce fil mésialement dans le trou, en contournant labialement et pénétrant distalement dans l'autre trou.

d) Cirer le "veneer" par-dessus cette crampe.

(Voir photo no 9)

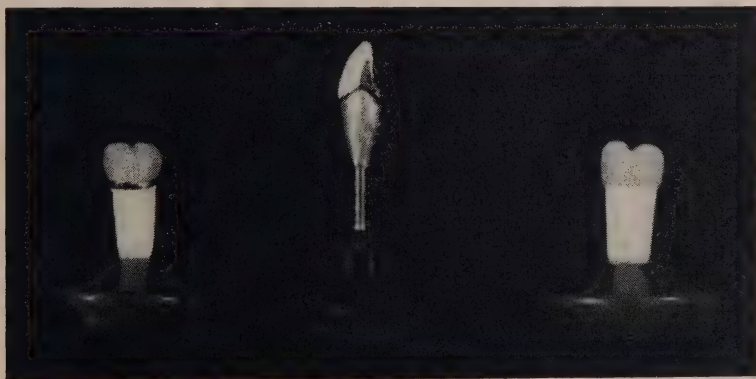


Photo no 5

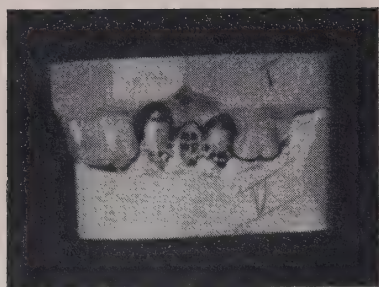


Photo no 6

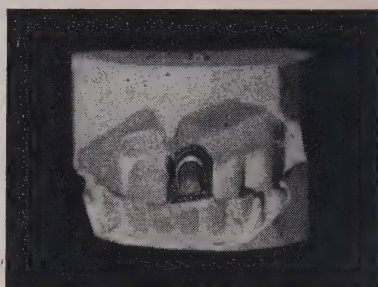


Photo no 8

- e) Investir, faire fondre la cire, mettre une substance opaque pour cacher le fil de platine, et faire cuire l'acrylique.
- f) Enfin, cimenter ce "veneer" en bouche et alors, le pont se trouve cloué, et ne peut se décimenter.

(Voir photo no 10)

Ce procédé est très avantageux dans la fabrication de ponts très longs et surtout, en présence d'un pilier court.



Photo no 7

Applications diverses:

1. Dents à pivot

Première technique:

- a) ouverture dans le canal préalablement soumis à un traitement d'endodontie parfait.
- b) ajuster un pivot d'acrylique entouré de cire à incrustation ramollie, afin de reproduire exactement l'empreinte de l'intérieur du canal.
- c) reconstruire une pile en cire autour du pivot d'acrylique sortant du canal.

- d) couler et cimenter en bouche.
- e) prendre l'empreinte comme pour une coiffe ordinaire, et confectonner.

Deuxième technique:

- a) ajuster un pivot d'acrylique avec cire à incrustation à l'intérieur du canal, laisser dépasser ce pivot, et le terminer par une tige horizontale formant un T.
- b) contrôler l'articulation en laissant au moins 1 à 2 millimètres pour l'épaisseur de la coiffe.
- c) couler ce pivot en forme de T, faire des marques de rétention et le placer en bouche sans le cimenter.
- d) prendre l'empreinte par-dessus le pivot avec une douille.
- e) cuire l'acrylique directement sur le pivot.
- f) cimenter en bouche.

2. Dents dévitalisées:

Premier cas:

S'il reste assez de dentine saine, mettre un pivot, moitié dans le canal et moitié dans la pile, et procéder comme à l'ordinaire. Ainsi, il n'y aura pas de danger de fracture de cette pile.

Deuxième cas:

S'il ne reste pas assez de dentine saine, faire une dent à pivot, en choisissant la technique de son choix.

3. Coiffe sur dent dévitalisée sans renfort fragile:

- a) Vider la coiffe intacte.
- b) Préparer la racine pour recevoir un pivot.
- c) Ajuster une tige d'acrylique entourée de cire à incrustation ramol-

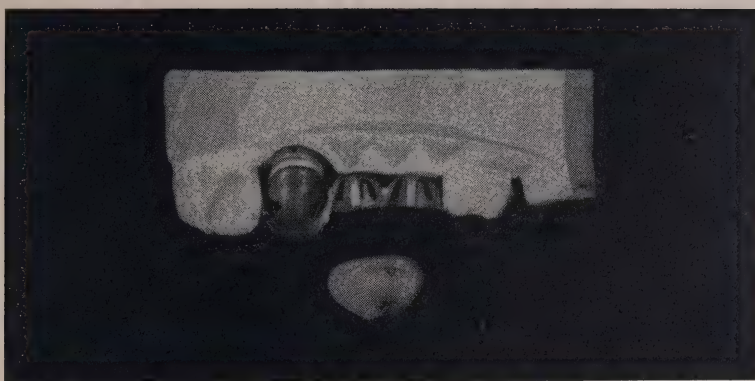


Photo no 9

lie dans le canal, et laisser l'extrémité de cette tige pénétrer dans la coiffe, tout en permettant à cette dernière de s'adapter parfaitement sur l'épaulement.

- d) Refaire le pilier fracturé, en cire, autour du pivot en se servant de la coiffe comme moule.
- e) Couler et cimenter en bouche.
- f) Recimenter la même coiffe. Dans ce cas, il n'est pas nécessaire de refaire une nouvelle coiffe.

4. Anciennes dents à pivot :

On considère ces couronnes comme dents naturelles, car si on essaye d'enlever le pivot, on risque de fracturer la racine.

Si la couronne se fracture au cours de la préparation, on coule en or la partie fracturée.

Pour remplacer d'anciennes couronnes à pivot, on taille une pile à même ces couronnes et on refait une nouvelle coiffe par-dessus.

5. Coiffes pour éviter certains traitements d'orthodontie :

(Voir photo no 11)

- a) Si l'on prévoit que la préparation des piles pour corriger le contour va toucher la pulpe, on fait d'abord le traitement de canal.
- b) Quand on fait six coiffes dans la même bouche, il est plus avantageux de prendre une empreinte totale avec le Dentocol au lieu de prendre le plâtre. Les six modèles d'amalgame se placeront mieux dans leur lit, et nous aurons un meilleur alignement pour sculpter nos dents avec un contour parfait.*



Photo no 10

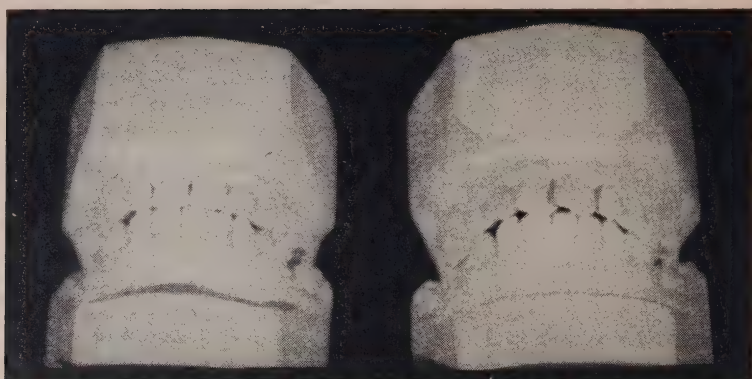


Photo no 11

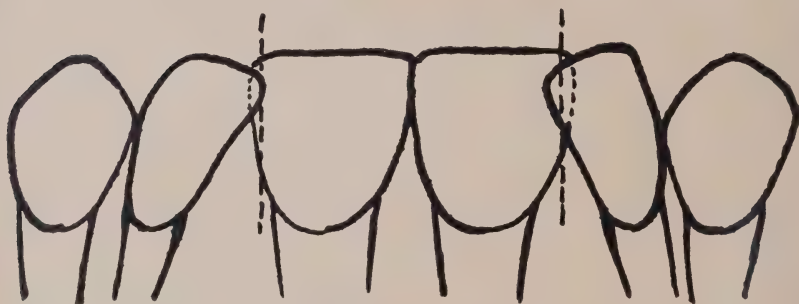


Schéma no 2

- c) On peut aussi préparer par-dessus les modèles d'amalgame, un contre-modèle en métal fusible à basse température; on place ces contre-modèles en bouche et on prend l'empreinte en plâtre par-dessus.

6. Dents croisées:

(Voir schéma no 2)

Si nous n'avons pas assez d'espace pour reproduire une dent de largeur raisonnable en position normale, on se permet de réduire la largeur de la dent voisine.

7. Dents en labio ou linguo-version:

- Dévitaliser.
- Pivot et pile en or.
- Meuler dents adjacentes.

8. Espace anormal entre les dents:

- Quand l'espace n'est pas trop con-

sidérable, on fait une coiffe sur les deux dents voisines et ainsi on ferme l'espace.

- Quand l'espace est trop large, v.g. lorsqu'une latérale est absente et que la centrale s'est déplacée distalement, on procède comme l'indique le schéma ci-contre.

(Voir schéma no 3)

9. Dents d'adolescents fracturées:

- Si la pulpe est exposée:
 - Pratiquer une pulpotomie, c.a.d. faire la résection de la pulpe dans la chambre pulpaire seulement.
 - Mettre Ca OH pour coiffer la partie restante du nerf.
 - Placer ciment et obturation.
 - Préparer cette dent pour recevoir une coiffe en or et acrylique combinés, sans épaulement.
- Si la pulpe n'est pas exposée:
 - Donner la prescription suivante;

*Quand les modèles d'amalgame sont dans leur lit dans l'empreinte en Dentocol, on les retient au moyen d'épingles et de cire collante.

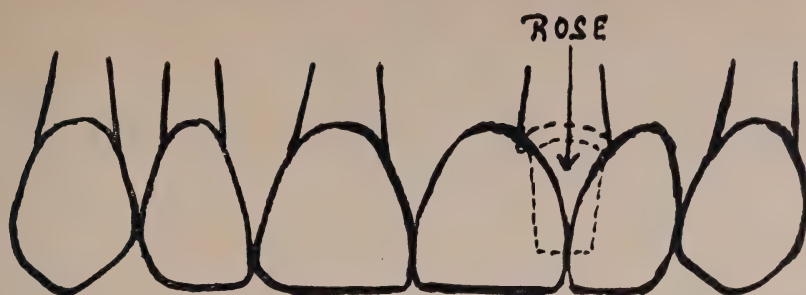


Schéma no 3

Gluconate de Calcium, 22, $\frac{1}{2}$ grs:
1er jour: 2 tablettes, toutes les
heures, 6 fois dans la journée.

2e et 3e jour: 1 tablette, toutes
les 2 heures.

4e jour etc.: 3 tablettes, par jour.
en même temps: 10 gouttes de
Viostréol, 2 fois par jour.

- b) Au bout de quatre mois, on pro-
cède à la restauration de notre
choix, selon le genre de fracture,
car alors, la pulpe s'est retirée, et

il s'est formée un pont de dentine
pour la protéger.

Conclusions

La coiffe étant la restauration par
excellence au point de vue résistance et
esthétique, rendons-lui justice en la pré-
parant d'une façon adéquate; n'employons
pas ces méthodes "abrégées", et travail-
lons toujours dans la bouche de nos
patients, de la même façon et avec les
mêmes précautions, que vous aimerions
recevoir pour nos propres dents.



Congrès annuel de la Société Dentaire de Montréal

C'est jeudi, vendredi et samedi, les 15-16-17 mai prochain, qu'aura lieu le
Congrès annuel de la Société à Montréal, en l'hôtel Windsor.

Un programme de tout premier ordre, tant au point de vue social que scien-
tifique, est à être préparé pour faire de ce congrès une agréable vacance en
même temps qu'un évènement scientifique profitable à tous.

Faites vos préparatifs dès maintenant en vue d'y prendre part et prenez
note des renseignements qui vous parviendront bientôt.



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Les dentistes européens émigrant au Canada

A plusieurs reprises, durant ces derniers mois, il nous a été donné de rencontrer dans la province de Québec, des dentistes de langue française, venant d'Europe, fort déçus de ne pouvoir exercer leur art parmi nous dès leur arrivée ou peu après l'accomplissement de formalités légales fort compréhensibles.

Ces dentistes, pour qui d'ailleurs nous avons beaucoup de sympathie, ont laissé leur pays pour venir s'établir au Canada, croyant qu'il leur serait facile de faire reconnaître leur équivalence professionnelle et qu'un an de séjour les autoriserait à pratiquer la chirurgie dentaire sur le même pied que les dentistes canadiens. Ces confrères européens prétendent que des fonctionnaires des agences d'immigration canadiennes, installées dans les grandes villes de France et de Belgique, par exemple, leur ont certifié que notre pays manquait de dentistes et que leur arrivée au pays serait promptement suivie du droit légal de gagner leur vie comme tels. On nous a, entre autres, montré des découpages de journaux invitant les dentistes européens à traverser au Canada, où l'exercice de leur art leur serait rendu facile. Ces annonces étaient rédigées et payées par des employés du gouvernement canadien.

Or, ces allégations, de la part des autorités canadiennes, sont contraires aux faits et nous déplorons l'ignorance, de la part de notre gouvernement, des qualifications exigées des étrangers pour obtenir une licence qui leur permette d'être inscrits au registre des praticiens de la province de Québec. Nous regrettons ces promesses que font miroiter aux yeux des dentistes européens certains employés d'ambassade.

Ces employés devraient savoir que les dentistes de chaque province canadienne, comme tous les autres professionnels, médecins, avocats, notaires,

etc., sont constitués en corporations fermées et que leur charte légale les autorise à élaborer eux-mêmes les règlements qui régissent l'exercice de la profession dans les limites de chacune des provinces.

Mais ce problème ne regarde pas les étrangers et des représentations sont à se faire auprès des intéressés pour corriger cet état de choses.

Ces gens arrivent ici de bonne foi, pleins de confiance en leur pays d'adoption et apprennent parfois un peu tard qu'il leur est quasi-impossible d'exercer dans la province de Québec avant qu'ils ne soient naturalisés citoyens canadiens.

Nous ne sommes pas au fait des exigences des autres provinces canadiennes pour l'octroi de licences dentaires, mais nous sommes informés, par le registraire du Collège des Chirurgiens-Dentistes de la province de Québec, que la Loi des Dentistes de Québec ne contient aucune disposition relative aux dentistes diplômés d'universités ou d'écoles situées en dehors du Canada et, par conséquent, à moins d'une législation particulière (bill privé), tels dentistes doivent satisfaire aux exigences de ladite loi, savoir:

- a) Etre citoyens canadiens;
- b) Etre détenteurs du diplôme de bachelier d'une université canadienne ou britannique;
- * c) S'enregistrer comme étudiant en chirurgie dentaire;
- d) Faire quatre années d'étude à l'une des Facultés de Chirurgie dentaire de cette Province;
- e) Passer l'examen final devant les représentants du Collège.

Le Bureau provincial de Chirurgie dentaire peut cependant accorder aux dentistes diplômés en dehors du Canada la permission de faire adopter à la Législature de Québec un bill privé, autorisant le Collège des Chirurgiens-Dentistes de la Province de Québec à accorder, nonobstant toute loi à ce contraire, une licence pour l'exercice de la profession dentaire, à des conditions déterminées par ladite législation.

On est prié de noter que la permission de présenter une telle législation n'est en principe accordée qu'à des candidats qui sont devenus citoyens canadiens (ceci requiert cinq années de résidence au pays).

Tels candidats doivent aussi pouvoir produire des certificats attestant qu'ils ont, avant leurs études universitaires, fait des études secondaires considérées au moins équivalentes à celles qui sont exigées des candidats de la Province de Québec, à noter que les candidats de langue anglaise de cette Province doivent avoir au moins complété avec succès la deuxième année du "Arts Course", et ceux de langue française pouvoir produire leur degré de bachelier, ou encore (ceci s'applique aux candidats des deux langues) avoir passé avec succès l'examen du Bureau (brevet).

L'analyse de ces conditions révèle donc que les dentistes diplômés en Europe ont plusieurs obstacles à surmonter avant de devenir licenciés du Collège des Chirurgiens-Dentistes.

Nous ne discuterons pas le bien-fondé de ces exigences; elles ont été statuées, à coup sûr, pour des raisons sérieuses et pensées par des hommes éclairés sur les qualités que doit posséder un corps professionnel susceptible de rendre les meilleurs services possibles à notre population.

Nous voulons simplement mettre en garde nos confrères européens qui projettent une migration au Canada—et plus spécialement dans la province de Québec—, contre les propositions que peuvent leur faire certains agents du Canada chez eux. Il serait pénible qu'un départ, effectué après beaucoup de sacrifices et après de mûres réflexions, mène en terre étrangère des déceptions amères et des découragements stériles.

GERARD DE MONTIGNY

Nouvelles des Sociétés

Société dentaire de Montréal

La séance mensuelle générale eut lieu le 15 janvier 1952 au Salon F, de l'Hôtel Windsor.

Le Dr Durand, président, adresse ses vœux sincères de bonne année aux membres.

Le Dr Antoine Raymond présente le conférencier, le Dr Jacques Demers, qui nous entretient des hydrocolloïdes comme matériel à empreinte dans la méthode indirecte pour incrustations et attaches de ponts. "Cette méthode, dit-il, est simple et permet de façonner un modèle de cire avec facilité; elle diminue la durée des séances au fauteuil et le nombre de visites du patient. La difficulté de cette technique réside dans le maniement du modèle de pierre qui est délicat et qui exige des soins particuliers." Le Dr Demers nous montre l'instrumentation et le matériel indispensables. Il illustre magnifiquement sa technique de transparents colorés. Le ramollissement de la substance hydrocolloïde demande certaines précautions. Il recommande des porte-empreintes à refroidissement, munis d'un morceau de stent ou de cire pour donner une certaine épaisseur à la substance hydrocolloïde. Il confectionne

ses modèles en "Diolite". L'hydrocolloïde ne repousse pas la gencive, il faut, dans certains cas, utiliser des moyens pour refouler cette gencive. Cette méthode comporte l'emploi de deux empreintes: l'une sert à fabriquer un modèle individuel, l'autre sert au modèle complet. Il recommande de laisser durcir le modèle dans l'eau. La pile individuelle sert au façonnement de la cire, qui est ensuite transportée sur le modèle principal. Cette méthode sert non seulement pour les incrustations isolées, mais aussi pour la construction d'un pont. Il faut que les cavités soient visibles et libres de sang et de salive. Il faut donc assécher la bouche au préalable. Le Dr Demers complète sa conférence de façon pratique, en donnant une démonstration sur modèles de table. Il illustre la précision de la technique en transférant indifféremment des incrustations sur des modèles.

Le Dr Yves Lafleur, président de la Société dentaire de St-Hyacinthe, remercie le conférencier. A la fin de la réunion, le Dr Gérard de Montigny propose à l'Exécutif de voter un montant à l'achat d'un souvenir destiné à orner les nouveaux locaux de l'Association Dentaire Canadienne, pour représenter la Société à notre organisme national.

NOUVELLES DE L'ASSOCIATION

**Congrès de Londres, du 19 au
26 juillet 1952**

Comme le congrès de Londres se tiendra durant la grosse saison du tourisme, les réservations d'hôtel et des billets de paquebots deviennent déjà plus difficiles. L'Association Dentaire Canadienne a choisi la Cie Thos. Cook & Fils Ltée, il y a déjà plusieurs mois, pour s'occuper de l'organisation de voyages de dentistes canadiens. Cette compagnie a réservé toute une série de billets et de chambres d'hôtel pour les membres de l'A.D.C., mais avertit que les réservations qui ne seront pas réclamées au début de mars seront annulées. Ceux que ce congrès intéresse doivent se mettre en communication avec l'agence de voyage Cook, 75 King Street W., Toronto, le plus tôt possible.

Taux de chemin de fer réduits pour le Congrès de Vancouver

L'Association Canadienne des Passagers a consenti à réduire les taux de transport par chemin de fer pour les personnes qui se rendront à Vancouver pour le Congrès de l'Association Dentaire Canadienne, qui aura lieu du 11 au 18 juin prochain.

Les dates autorisées pour les départs sont les suivantes:

"Pour les endroits à l'ouest (c'est-à-dire, à l'ouest de Fort William et Armstrong, Ont.)—du 7 au 13 juin inclusivement.

Pour tous les endroits à l'est (c'est-à-dire, de Fort William et Armstrong, Ont. et tous les endroits situés à l'ouest de ces deux points, excepté Terre-Neuve), du 4 au 10 juin inclusivement.

Pour Terre-Neuve, du 1er au 7 juin inclusivement."

Pour obtenir des billets à prix réduits, il faut présenter un certificat d'identité au guichet. On obtient ces certificats d'identité en s'adressant au Secrétaire, Association Dentaire Canadienne, 234, rue St-Georges, Toronto.

Jour. A.D.C., mars, 1952

Communiqué supplémentaire sur la fluoruration des eaux des aqueducs, émis par le Comité des Recherches

"Les statistiques s'accumulent sans cesse pour prouver des diminutions dans le nombre des caries chez les enfants qui boivent de l'eau additionnée de fluorure de sodium, dans certaines villes. Un communiqué précédent de ce comité disait qu'un bon nombre d'organismes scientifiques et administratifs recommandaient la fluoruration des eaux des aqueducs municipaux. Le National Research Council, de Washington, et l'Association Médicale Américaine ont approuvé officiellement cette mesure, il y a quelque temps. Il semble maintenant bien prouvé que les dents des enfants sont mieux protégées contre la carie dentaire; cependant, nous ne connaissons pas encore les effets de l'ingestion prolongée de fluorure de sodium sur la santé en général ou sur la physiologie des tissus environnant les dents. Des rapports, qui ne sont pas encore confirmés, semblent dire que le fluorure aurait un mauvais effet sur les gencives et les membranes péri-dentaires. Le Comité des Recherches recommande donc aux municipalités, intéressées à la fluoruration des eaux des aqueducs, de l'entreprendre sur une base d'expérience et de compiler des statistiques précises sur cette entreprise, jusqu'à ce que tous les angles du problème aient été examinés. En prenant ces mesures, les dents des enfants seront en partie immunisées et des renseignements additionnels feront avancer nos connaissances actuelles.

Le Comité des Recherches se rend bien compte de l'amplitude de ce problème de santé publique; il continuera à surveiller tous les nouveaux développements et présentera à la profession dentaire canadienne les plus récentes nouvelles, à ce sujet, au fur et à mesure qu'elles seront disponibles."

*(Voir livraison de mars 1951,
du Journal de l'Association Dentaire Canadienne)*

Déboursés individuels faits pour les services dentaires aux Etats-Unis

Le Ministère du Commerce des Etats-Unis vient de publier que le public a dépensé \$991,000,000 chez les dentistes durant 1950, soit une augmentation de 6.4 pour cent sur l'année précédente. Ces chiffres ne couvrent pas les sommes venant du gouvernement ou d'organisations philanthropiques.

Basé sur la population totale des Etats-Unis, ce montant veut dire que chaque individu a dépensé une moyenne de \$6.60 durant l'année pour ses traitements dentaires. Cette dépense personnelle augmente graduellement tous les ans, depuis 1933, où elle était de \$2.20. Les dentistes des Etats-Unis auraient traité 60 millions de patients durant l'année. La moyenne des déboursés de chaque patient serait donc de \$16.50, durant 1950. Une partie de l'augmentation est attribuable à la hausse des honoraires. Les honoraires dentaires aux Etats-Unis, selon un index compilé par le Ministère du Travail sur les soins dentaires, auraient augmenté de 54% en 1950, si on les compare à ceux de 1935-1939. Les dépenses individuelles pour les traitements dentaires ont presque doublé depuis 1935, même si on ne tient pas compte de l'augmentation des honoraires: ce qui veut dire que la quantité des services dentaires par tête, a presque doublé. Cependant, la quantité des ser-

vices dentaires, par tête, s'est maintenue constante depuis 1943.

Ces statistiques paraissent dans la livraison de janvier du Journal de l'Association Dentaire Américaine. Au Canada, nous n'avons pas de statistiques semblables.

Certificat de présence aux congrès nationaux

L'A.D.C. a expédié par la poste, durant janvier, des certificats de présence à ceux qui s'étaient enregistrés au Congrès d'Ottawa. Ces certificats sont indispensables pour obtenir des déductions d'impôt sur le revenu. Les membres doivent se rappeler que seul le certificat doit être attaché au rapport d'impôt et qu'ils doivent conserver leurs reçus de dépenses pour les produire au besoin. Ces dépenses doivent être inscrites dans la comptabilité du dentiste pour pouvoir être déduites du revenu.

Le rôle de la prévention dans un programme de santé dentaire

Les membres ont reçu, durant janvier, un pamphlet intitulé: "Le rôle de la prévention dans un programme de santé dentaire". Il avait été préparé par le Comité d'Etudes sur l'Assurance-Santé. Sur demande, on peut s'en procurer d'autres copies, en anglais et en français.

**Le congrès de la Société Française d'Orthopédie Dento-Faciale
aura lieu à Genève (Suisse) du 22 au 25 mai 1952**

Le thème principal sera:

LE DEVELOPPEMENT NORMAL DE LA FACE

Pour tous renseignements s'adresser au Professeur E. FERNEX,
Institut de Médecine Dentaire, Rue Micheli-du-Crest 43 à Genève (Suisse)



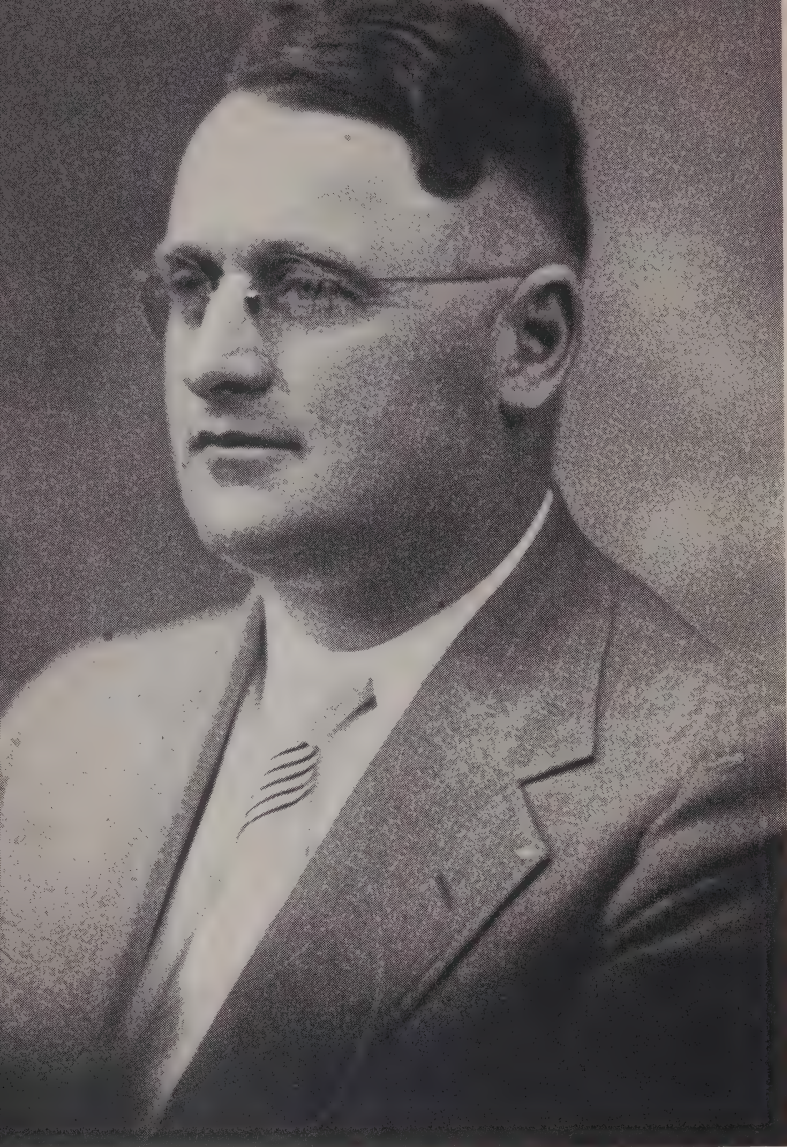
HOTEL VANCOUVER (C.P.R.-C.N.R.)

C.D.A. CONVENTION HEADQUARTERS JUNE 15-18

Those wishing special **TOURIST TRAVEL INFORMATION**, side trips or tours in B.C., prior to or after the Convention, can receive same by contacting the B.C. Government Travel Bureau, Victoria, B.C. and B.C. Automobile Association, A.A.A., corner Richards and Georgia Sts., Vancouver, and the Vancouver Tourist Association, corner Seymour and Georgia Sts., Vancouver.

REGISTRATION CERTIFICATES enabling members to claim deductions for Income Tax purposes will be mailed to all members who register at the Annual Meeting. It is important therefore that those who wish to have such certificates make sure they register upon arrival at the meeting.

REDUCED RAILWAY FARES have been authorized for the meeting. Secure identification certificate from the Secretary of the C.D.A.



B. R. ROSS, D.D.S.
Fredericton, New Brunswick

Graduate University of Toronto, 1923.
Past President of the New Brunswick Dental Society
Former Alderman, City of Fredericton
General Chairman Maritime Dental Convention, 1952.



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, APRIL, 1952

No. 4

Treatment of Pulpless Teeth with a Polyantibiotic Paste

by LOUIS I. GROSSMAN*, D.D.S., Dr. med. dent., Philadelphia, Pennsylvania, U.S.A.

THE last few years have witnessed a revival of interest in endodontic practice. This has not been a sudden revival but a slow, gradually growing interest influenced by the realization that the removal of pulpless teeth seldom brought about amelioration of systemic symptoms and that pulpless teeth can be treated and retained with safety to the patient. This interest was given greater impetus by the advent of antibiotics.

What will be the practice ten years from now? Will this interest be sustained or will it lag? A great deal depends upon the dentist's attitude and his mode of practice. If he regards antibiotics as a panacea, if he does not select his cases with care, if he does not follow a sterile technique, if he carelessly prepares the root canal, if he continues to depend upon sense of sight and smell to determine whether the canal is ready for filling, if he winds up with a half empty root canal, the outlook is poor. We will then again witness an abandonment of root canal treatment by the rank and file of the dental profession because areas of rarefaction will not become resolved and areas will appear where none had been before. Those, however, who understand the basic philosophy underlying root canal treatment and who have mastered the somewhat rigorous but simple technique required to carry

out endodontic procedures, will be rewarded with the satisfaction that comes with saving teeth and prolonging the life of the masticatory apparatus both aesthetically and functionally.

It might be well first to discuss the philosophy of root canal treatment and then some of the basic principles underlying treatment before we consider the utilization of antibiotics for sterilization of the root canal.

PHILOSOPHY OF ENDODONTIC TREATMENT

For a number of years the dental bacteriologist and the dental pathologist disagreed regarding the status of the pulpless tooth. While one invariably found microorganisms upon culturing, the other seldom found them, even in the periapical areas of untreated pulpless teeth. This apparent difference between their findings was resolved by the research studies of E. W. Fish¹. He showed that the organisms the bacteriologist recovered came from the gingival crevice and not from the periapical area. The microorganisms were present in the gingival sulcus and were forced up along the root surface by the alternate positive and negative pressure created during the act of extracting the tooth from its socket. In fact, organisms were actually pumped into the blood stream

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in a large number of cases so that blood cultures were positive after extraction. After cauterizing the gingival tissue around the tooth to be extracted, no microorganisms could be recovered from the root surface nor were blood cultures positive. He went a step further. In guinea pigs he drilled holes in the mandible, then plugged up the holes with cotton saturated with a 24-hour growth of organisms. The organisms used were *Streptococcus viridans*, beta Hemolytic streptococci and *Staphylococcus aureus* — organisms commonly isolated from the root canals of pulpless teeth. After varying periods of time, he sacrificed the animals and studied serial sections of the operated and infected areas. What he found is diagrammatically illustrated in Figure 1.

Apparently the organisms are seized upon and destroyed by the leucocytes when they diffuse out of the root canal into the periapical tissue. The source of infection is the root canal. So long as the organisms remain there a chronic low grade infection exists. If they diffuse out from the canal in large enough numbers to overcome the

leucocytes, an acute abscess develops. In most cases, however, a chronic infection persists in which the irritant (toxins) is mild enough to act as a stimulant so that a granuloma is produced. It should be emphasized, however, that microorganisms are rarely present in the periapical tissues and that when they are present, they are transient invaders which are in time disposed of by the leucocytes. When the source of the infection in the root canal is eliminated by sterilization of the canal and the canal is filled, repair of the periapical area occurs. In some cases the amount of damage is so great that repair either does not occur or occurs slowly. These cases are few in number compared with the large number of pulpless teeth treated. In such cases resection and curettage is necessary to remove the dead bone before repair will occur.

SELECTION OF CASES FOR TREATMENT

Ab initio let us agree that not all pulpless teeth are satisfactory candidates for treatment. Let us agree that under certain circumstances pulpless teeth should either be root resected or

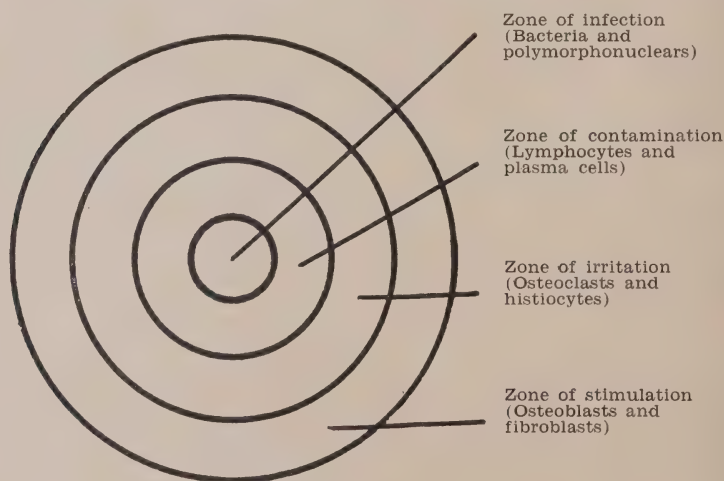


FIG. 1

Schematic representation showing various zones and types of cells present within zones when a focus of infection is established. The central zone, containing microorganisms, may represent an untreated root canal with the peripheral zones showing effect of toxins arising from central zone becoming more and more dilute until they act as a stimulus for repair.

extracted. The dentist who attempts to treat all pulpless teeth errs as much as he who condemns all pulpless teeth. Good judgment and discrimination must be exercised in deciding whether to treat or not to treat a pulpless tooth. It is perhaps simpler to indicate diagrammatically which pulpless teeth should either have the benefit of root resection or else, if this is not feasible, should be extracted. The contraindications to root canal treatment are depicted in Figure 2. It can be assumed that if the patient is in good health and if there are no local contraindications to treatment, the tooth is a satisfactory candidate for treatment.

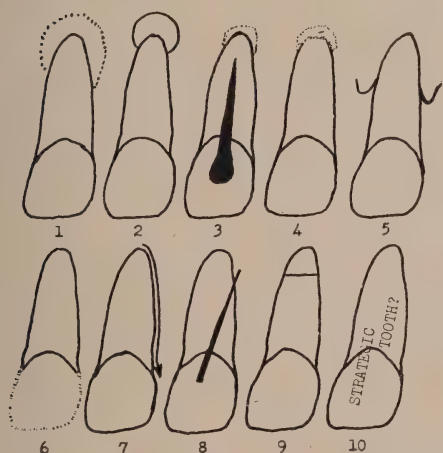


FIG. 2

This is Fig. 47 of Grossman's "Root Canal Therapy" (slightly modified), 3rd ed.

STERILE TECHNIQUE

Endodontic operations differ from all other dental operations in at least one important respect: a sterile technique must be followed. Not the sterile technique of surgery but the sterile technique of the bacteriologic laboratory must be insisted upon while carrying out treatment of a pulpless tooth. The dentist who saves two minutes by not applying the rubber dam, may lose two hours, in addition to time taken to treat the tooth. Furthermore,

the end result is not likely to be as satisfactory. The rubber dam can be applied on almost any anterior tooth in one minute and on posterior teeth in two minutes with just a little practice. Where a class II cavity is present, the rubber dam is applied not only over the tooth to be treated but the tooth adjacent to the cavity as well. The more posterior of the two teeth is clamped, the other tooth being ligated. Where the crown has a subgingival cavity a copper band may be cemented around the tooth and kept in place until the endodontic operation has been completed. A class I cavity is prepared through the cement, access to the root canal being gained from this cavity. Where the crown of a tooth has been fractured and only a small portion remains, a narrow orthodontic band may be cemented in place and this will serve to hold the rubber dam in place. At times if a "butterfly" clamp such as S.S.W. nos. 211, 212 or Ivory nos. 6 or 9 tends to slip off an anterior tooth, a no. 27 S.S.W. clamp will be found most useful as it tends to bind against the adjacent tooth which keeps the clamp from slipping.

All instruments and materials used in the pulp chamber or root canal of the tooth must be sterile. We prefer to use a molten metal sterilizer for resterilizing all root canal instruments just prior to insertion in the canal. Long-handled instruments are resterilized by dipping in alcohol and flaming, repeating this procedure a second time. Means of sterilizing root canal equipment have been described elsewhere.²

BIOMECHANICAL INSTRUMENTATION

The most important phase of root canal treatment is without doubt biomechanical instrumentation. No deflection on the part of the operator in failing to remove debris from the root canal will be compensated for by antibiotics or other antibacterial agents. All debris *must* be removed from the root canal. The canal *must* be enlarged no matter how wide it is because dur-

ing enlargement grossly infected material and debris are removed from the canal surface. Narrow canals of posterior teeth should be enlarged to at least number 3 size, preferably larger. Canals of upper anterior teeth should be enlarged to at least a number 6 size, preferably number 7 or 8. It is not generally known, perhaps, that long-handled reamers (Kerr style D) are now available in sizes up to number 12. Time spent in adequately enlarging a root canal is time well spent. It not only removes much of the infected tooth structure but also increases the capacity of the root canal for the insertion of a larger volume of polyantibiotic paste. In addition, it makes filling of the root canal simpler.

IRRIGATION OF THE ROOT CANAL

During mechanical instrumentation, most debris is caught between the blades of the reamer or file but some of it is left behind on the canal surface. This residual debris should be removed. Just as a stream of water is used to wash out the dentine chips in a tooth following preparation of a cavity, so too a stream of sterile water, normal saline or other irrigation solution should be used to wash out the root canal. The solution, or rather solutions, preferred by me are hydrogen peroxide and chlorinated soda. The first is an oxidizing agent, the second a reducing agent, both interacting to liberate nascent oxygen with *effervescence*. This effervescence helps to wash the debris out of the root canal. There is no likelihood of the effervescence forcing the debris or the solution through the apical foramen as it is perhaps 1/20th as small as the cavity in the crown of the tooth, and also because it is partially closed off by periapical tissue. About 0.5 to 1 cc. of chlorinated soda solution is discharged into the root canal from a syringe fitted with a 25 or 27 gauge needle. The needle must fit the canal loosely. As the solution runs out of the canal it is absorbed by a cotton roll held near the incisal or occlusal surface

of the tooth. This procedure is repeated using hydrogen peroxide. Alternating irrigations with chlorinated soda solution and hydrogen peroxide are continued until no more debris is seen on the cotton roll as the irrigating solution drains out of the canal. The final irrigating solution should preferably be chlorinated soda, the formula for which is given below.

Monohydrated sodium

carbonate	140 Gm.
Chlorinated lime	200 Gm.
Distilled water	1000 cc.

Dissolve the sodium carbonate in 500 cc. of water, triturate the chlorinated lime with the balance of the water, mix, shake occasionally and let stand overnight, shake again and filter.

The canal is then dried thoroughly and is ready for the insertion of the polyantibiotic paste.

POLYANTIBIOTIC PASTE

The author has been interested in the use of antibiotics for the treatment of pulpless teeth since their advent about a decade ago. The following antibiotics have been tried in *in vitro* studies in an effort to determine their effectiveness against the microorganisms generally found in root canals, i.e., against gram positive, gram negative and yeast organisms: actidione, asterol, fungistatin (XG), thiolutin, rimocidin, fradycin, endomycin, humulon, lupulon, hexahydrolupulon, perazil, aspergillie acid, gliotoxin and viomycin. In addition the more common antibiotics such as penicillin, streptomycin, aureomycin, terramycin, chloramphenicol, bacitracin, tyrothricin, and neomycin have been given extensive tests in the laboratory and at least preliminary, if not, thorough trials in the clinic.

At the present time from the standpoint of effectiveness and stabilization at room temperature, the polyantibiotic paste to be described here meets our needs better than any root canal medicament or any other combination of antibiotics. It is effective against

all organisms likely to be encountered in a root canal, destroying them in most cases (not all) in one treatment. This polyantibiotic paste is stable at room temperature for about six months. It is readily applied in the root canal by means of an iridio-platinum tapered wire carrying a small amount, about the size of a pin head, into the canal at a time. Or else, if the homogenized paste in a carpule is used, it can be extruded from a cartridge type syringe fitted with a 23 gauge needle. No irritation will occur if the polyantibiotic paste is confined to the root canal which is the source of the infection. If the paste is extruded through the apical foramen accidentally, irritation will occur in some cases which gradually subsides as the paste is absorbed. The formula of this antibiotic paste is as follows: 1,000,000 units potassium penicillin G 10,000 units bacitracin

1 Gram dihydro-streptomycin

1 Gram sodium caprylate

3.0 DC 200 silicone fluid—from 3 to 20 centistokes

This paste will be referred to as PBSC. It may be prepared as follows: Place the ingredients in a perfectly *clean, sterile* mortar and triturate for 10 minutes with a *clean, sterile* pestle until a smooth paste results. Transfer to a sterile ground glass-stoppered bottle, label and record date of preparation. To use the polyantibiotic paste from the bottle, remove the ground glass stopper and place it in an inverted position on the instrument tray. With a sterile 21 gauge tapered iridio-platinum wire in a suitable holder, transfer a small amount of the PBSC polyantibiotic paste to the inverted ground glass stopper. Remove a pin head amount of the PBSC from the stopper and insert in the root canal. Repeat several times until the canal is well filled with the paste. Now insert a short, blunt, dry sterile absorbent point in the canal and a sterile cotton pledget in the pulp chamber. Wipe off the excess polyantibiotic paste adhering to the cavity wall with

chloroform on a cotton pledget. Seal the cavity preferably with an inner seal of temporary stopping and an outer seal of base plate gutta percha or cement.

At the next visit a culture should be taken and the polyantibiotic paste should be resealed in the root canal. It should be noted that there will be no trace of the paste left in the root canal. Instead, the usual wet absorbent point will be found. The polyantibiotic paste has become dissolved in the periapical exudate so that only the usual wet absorbent point is present.

At the next visit, if the culture is negative, the canal may be filled. It is recommended, however, that two successive negative cultures be secured before filling the root canal if the operator is inexperienced to ensure that the negative culture is not an accident. The culture medium should contain one unit of penicillinase, a ferment which inactivates penicillin, for each cc. of medium. At least 10 cc. of medium should be used for culturing so that any antibiotic which might be carried over on the absorbent point from the root canal will be so greatly diluted as to make its effect negligible. There are no known inactivators for bacitracin or sodium caprylate. If brain heart infusion broth or other culture medium containing glucose is used, no additional inactivator is necessary for streptomycin (Fig. 3, 4, 5, 6.)

THE FUTURE OF ENDODONTIC TREATMENT

While none can predict the future, one might be excused for speculating upon the future. The author has no doubt but that some antibiotic will be developed which will be just as effective as PBSC against gram positive, gram negative and yeast organisms. Furthermore, this antibiotic will be stable in aqueous solution at room temperature. At the present time, however, no single antibiotic is available which will destroy effectively these three types of organisms. Antibiotics such as aureomycin, terramycin and

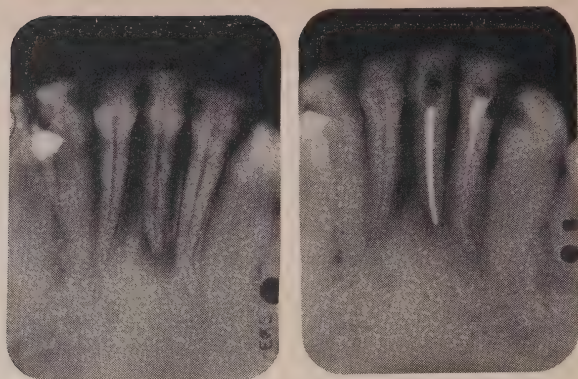


FIG. 3

Granuloma of lower right central. Root resection was advised but could not be carried out because patient was apprehensive. The tooth was treated with PBSC. Check-up film was taken one year later.



FIG. 4

Traumatic injury of three lower incisors with slight loosening of these teeth. They were treated with PBSC. Check-up film was taken nearly one year later.

chloramphenicol are not as effective against gram positive organisms as penicillin. Neither are they as effective against gram negative organisms as is streptomycin.

It should be mentioned here that both synergism and antagonism exist between antibiotics. In certain combinations, antibiotics are more effective than when either antibiotic is used alone; in other combinations, they are less effective than either antibiotic. Penicillin and streptomycin, in combination, have a synergistic effect.^{3, 4, 11} Likewise penicillin and bacitracin have

a synergistic effect.⁵ On the other hand, penicillin and aureomycin, or penicillin and chloramphenicol, or penicillin and terramycin have an antagonistic effect.^{6, 7, 8, 9, 10, 11, 12, 13} In other words, the addition of aureomycin, chloramphenicol or terramycin to penicillin actually diminishes the death-dealing effect of the last mentioned antibiotic to microorganisms. Apparently, if an antibiotic of moderate activity is added to one of high activity, the effectiveness of the latter is reduced. One explanation given of this antagonistic effect is that the charac-

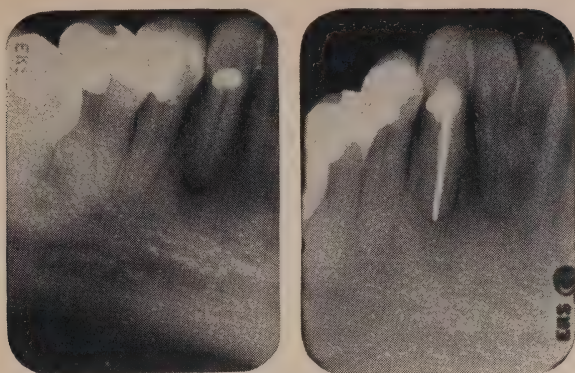


FIG. 5

Preoperative film shows possible resorption of root end and area of rarefaction around lower left cuspid. The tooth was treated with PBSC. Check-up film taken 1½ years later shows complete repair of periapical bone.



FIG. 6

Granuloma of lower right second bicuspid. The tooth had been treated several years previously and roentgenogram shows a poorly filled root canal. The tooth was retreated with PBSC and refilled. Check-up film was taken 1½ years later and shows area has been repaired with dense bone.

teristics of the bacterial population are so modified by the moderately effective antibiotic so as to make it less sensitive to penicillin. "Since penicillin is active only against actively growing organisms, it is readily conceivable that bacteriostatic concentrations of these antimicrobial agents would lessen the effectiveness of penicillin. On the other hand, a synergistic effect would be anticipated if such agents as bacitracin or streptomycin, which are active against non-proliferating organisms, were combined with penicillin."¹³

Theoretically, the combination of penicillin with bacitracin and streptomycin should give an optimum antimicrobial effect. This is borne out by clinical experience.

SUMMARY

(1) Antibiotics are extremely useful agents for the treatment of infected root canals but they are no panacea. They will not make up for poor debridement or mechanical cleansing and enlarging of the root canal.

(2) Antibiotics in high concentration will reduce the number of treatments required to sterilize the root canals of infected pulpless teeth.

(3) To obtain the maximum anti-

bacterial effect, a proper combination of antibiotics is essential. In certain combinations, the antibacterial effect of penicillin is reduced rather than increased.

(4) A formula for an optimum combination of antibiotics, which is effective against all microorganisms found in infected root canals, is given.

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A Psychological Approach to Dentistry for Children

by DAVID C. WAY,* D.D.S., London, Ontario

THE child patient has always been and still is one of the greatest problems of the dental profession as a whole. It is quite obvious to both the public, and to the profession, that the dental needs of our children are not being attended to in a manner which is in keeping with our professional ideals. Oh yes! we offer many excuses for this neglect of our children; all of these excuses can be pretty well condensed into two. First of all we do not think that we can do as well financially working with children as with adults, and in the second place, to put it bluntly, we are "scared half to death" of children when it comes to performing dental operations for them.

We convince ourselves that we are not of the emotional type who can successfully manage children; that it "takes too much out of us", and that there is no money in it anyway. By rationalizing in this manner we are able to avoid our responsibilities and soothe our consciences, and in so doing, "let the other fellow take care of the children." The trouble is however, that there are not enough "other fellows" to render the needed service and consequently, all of us whether we want to or not are going to have to roll up our sleeves and share the re-

sponsibilities of caring for the dental needs of the children.

The purpose of this paper is to bring to the attention of my readers a few of the more fundamental psychological principles pertaining to the practice of dentistry for children, with the hope that the ideas contained herein may be of some benefit to those who are dealing with children.

My observations are a result of my own experience in the conduct of a dental practice for children, along with the observations of several of the crusaders for children's dentistry whom I highly respect.

INTRODUCTION

Our main problem in dealing with the child patient is one of fear; fear on the part of the child with regard to the painful procedures which he thinks are impending; fear on the part of the dentist because of the possibility of his not being able to manage the child, and of having to undergo an embarrassing session which he is afraid will label him as incompetent in the eyes of the parents, and so injure his ego, and thirdly; fear on the part of the parents, mainly because of the embarrassment which they may be caused

*At present studying orthodontics at the University of Michigan.

if the child does misbehave or "cause a scene".

On this basis, it is quite clear that our paramount problem or concern is that of fear. How can we control this fear and carry out the necessary dental operations required, as efficiently and as pleasantly as possible, with the least discomfort on the part of all parties concerned? It is not enough to think entirely in terms of completing the operation as quickly as possible and "getting rid of" the child. The way in which children are managed in dental offices will go a long way in determining the future attitude they will have towards dental treatment. Every day we see many adults who neglect their teeth, and as a result suffer great discomfort just because they will not submit to dental treatment as a result of some unfortunate childhood experience in the dental chair.

The long range plan of conditioning youngsters is one which cannot be stressed too much. The psychology of getting along with the child patient is for the most part nothing but good sound common sense, in fact we apply a great deal of child psychology unconsciously when managing children if we have the correct mental attitude towards the patient and the work which we are attempting to do for him.

I am afraid that in the past few years a great deal of the literature which has been written on the subject of child management, and the hundreds of different ways in which children can be managed, has frightened many dentists away from any attempt to do more for children than they absolutely had to.

Modern parents are continually bombarded with all kinds of formulae as to how they should guide the physical and mental development of their children. A great many of the ideas expressed have been basically sound but their application to the individual child in many cases has been far from sound.

In this paper I have no intention of trying to lay down any "cut and dried" method of managing children because such does not exist. It is my intention however, to discuss the problem from a common sense point of view so that my readers will not feel that they must have any special "God given" qualifications, nor a Ph.D. in psychology to work successfully with children in their own offices.

FEAR

When early man first roamed the face of the earth fear was a very necessary emotion for his very existence. As described by Strecker and Appel in their very excellent description of the fear emotion; "In the struggle for existence when man encountered situations where the alternative was to fight or perish, anger supplied the energy which enabled him to survive. When the alternative was to escape or perish, fear functioned in the same capacity."*

The causes of fear are numerous. Fear is aroused when survival is endangered. The term danger however, should not be interpreted merely as danger related to physical injury or harm, but also danger relating to loss of ego, or personality, or self esteem. The emotion of fear may wear many disguising cloaks and before we can hope to control our own fear and the fear of others we must be very sure that we have an accurate understanding of the emotion, and the way in which it operates.

The fear exhibited by children upon entering a dental office for the first time is a fear arising from that which is unknown to them. We all fear things which we do not understand, and in most cases the fear is eliminated as soon as the unknown becomes known. In other words, the child is suddenly confronted with a completely new and unfamiliar setting, and a procedure in which he is to be one of the

*Strecker, E. A. & Appel, K. E.—*Discovering Ourselves* pp. 175.

key figures. Besides this the child has probably heard a great deal of exaggerated talk on the part of parents, relatives and friends concerning the atrocities they have braved at the hands of dentists in having their own teeth cared for. Consequently, is it any wonder that upon arrival at a dental office the child is immediately on the defensive, ready at a moment's notice to use the mobilized energy which fear has supplied to avoid, and so protect himself from the anticipated danger!

Fear on the part of the dentist is of a much different kind. The dentist is concerned with the fact that his reputation would be injured if it became known that he was unable to manage too many of these children, just the same as the fact that his professional reputation would be enhanced if he was successfully able to manage the same children.

If a dentist admits defeat and is unable to manage a child, which is too often the case, then his ego suffers and he becomes frustrated. This frustration of his desire to do work for the child is quite likely, and usually does lead to anger on his part. If the child sees that he has frustrated and angered the dentist, control of the child from this point on is hopeless because the child will immediately proceed to take greater advantage of the situation, which makes the angry dentist still more angry. It is obvious therefore, that after a few unfortunate experiences of this sort, the dentist begins to associate all children with this sequence of events and consequently, his fear of what may happen is increased to such an extent that he refuses to do work for any child. I am convinced that it is not the actual work which we do for children that wears us out, but rather the fact that our nerves are on end all during an appointment with a child as a result of our anticipation of trouble that in the majority of cases never occurs. Most children are excellent patients but our

own fear keeps us in a "cold sweat" during the whole appointment, particularly if we have had a little trouble with the child on a previous occasion.

Fear on the part of the parents is a little more complex. It arises mainly from the danger or possibility of a scene being caused if the child misbehaves, which would lead to embarrassment on their part. The over-anxious parent is often just as great a problem as the child. The parents do not usually understand what is to be done for the child; they may recall some of their own rather unfortunate experiences at the hands of dentists and as a result, they end up with a confusion of ideas. They naturally sympathize with little "Mary" because of the ordeal they think she is going to have to endure, and in some cases even regard the dentist as a necessary, but yet hard and unsympathetic character, and deep down within themselves do not really blame "Mary" if she does kick up a fuss; on the other hand they hope to goodness that there will be no scene because of the embarrassment it would cause them.

Upon analyzing the situation therefore, we find that it is a little more complex than may appear on the surface. In the remainder of this paper, I intend to deal in turn with the dentist, the child, and the parents; these are the three personalities who play major roles in the practice of dentistry for children and determine the success or failure of any procedure related to this practice.

THE DENTIST

Before anything can be accomplished in dentistry for children it is absolutely necessary that a dentist assume the correct mental attitude concerning his work for children. I am quite aware of the fact that it is very difficult sometimes to hide one's real feelings, and control one's emotions when working with certain children, but I am equally aware of the fact that many adult patients present

far greater management problems than the average child. If a dentist is called upon to treat a high-strung, nervous adult, he of course doesn't enjoy the ordeal, but he accepts it as one of the more difficult aspects of his profession, and after the patient has left he dismisses it as such. At the same time however, he experiences a feeling of accomplishment or satisfaction because he has treated a difficult patient successfully; in other words he has had an opportunity to expand his ego, and rightfully so.

The difference between working with a difficult adult and a difficult youngster lies mainly therefore, in the attitude with which the problem is approached. I admit that it is more difficult for some dentists to assume the correct attitude concerning dentistry for children than others because of basic differences in personality, but I do believe that any dentist who is already successfully practising adult dentistry can, with a little readjustment on his part, do his share in caring for the children in his community.

Before going further, perhaps I should be a little more specific as to my concept of "proper attitude" in children's dentistry. First of all, the tremendous need for dentistry for children must be clearly recognized and not ignored as it has been in the past. In keeping with our professional ideals, we must not lose sight of the fact that all people, both young and old, rich and poor, are our responsibilities, just as the people who are weak, irresponsible and unable to care for themselves in society are our responsibilities. The prevention of pain and the promotion of good health is our main concern. Why then should we think that pain experienced by children is any different from that experienced by adults? A few dentists still persist in leading parents to believe that the first teeth are unimportant, that they will soon be lost, and that consequently they need not

be concerned about them. It is quite true that the first teeth are lost eventually, but the deciduous molars must serve the child for the first ten to twelve years of his life. If these teeth become badly decayed and abscess, the child will quite likely have to undergo extreme dental pain, besides the fact that the premature loss of these first teeth may very well produce malformations which would be a source of trouble during the remainder of the individual's life. No dentist has the right to sentence any child to even the possibility of pain as a result of lack of treatment, by misinforming parents, simply to avoid working for children.

I have discussed at length this matter of attitude because it is of such primary importance in dealing with children. Unless a dentist can adjust his own personality, he will continue to fear the child patient and this fear in itself will be his downfall in the treatment of any child. On the other hand if his attitude is correct and he has made the proper adjustment, each child whom he successfully treats and dismisses at the end of treatment as a friend, and an excellent future patient, will give him one of the finest possible feelings of satisfaction, and confidence in himself. These successes will multiply and create still greater confidence on the part of the operator. As confidence increases, the fear of managing children diminishes until after a time a difficult child patient will be merely another challenge to be met with confidence and assurance rather than an ordeal to be faced with fear, pessimism and foreboding. When this stage of success has been reached, working for children ceases to be a wearing experience and becomes an interesting and fascinating undertaking.

Another objection which is often raised to the practice of dentistry for children has to do with the so called "low fees". In my own experience I find that dentistry for children can

be just as lucrative as general practice. It is quite true that parents must be continually educated to the fact that they have no right to expect to pay any less for their child's dental work than they do for their own. It is equally true however, that we as a profession have been in a great part responsible for this attitude on the part of parents. If we dismiss the first teeth as being unimportant, then it is logical that parents will feel the same way about them when they receive our bill. If, on the other hand, we can demonstrate to the parents our interest and concern regarding their child's teeth, by proper management of the child during treatment, by producing a fine result, and by bringing the child to a mental state where he has no fear of the dentist, then the parents will consider children's dentistry as something important and worth while and the collection of a reasonable fee will be no more difficult than it is in adult dentistry.

Let us now turn to a more practical application of child psychology to our every day practice. The first concept which must be thoroughly understood, is that the dentist must always be in complete control of the situation. Neither the child nor the parent must ever be allowed to dominate the procedure. In dealing with children the first objective of every dentist should be to gain the confidence of the child. When this has been accomplished, the dentist must be very careful that the child is never given reason at any subsequent time to wonder whether his confidence has been misplaced. If this ever does occur the child will receive a severe shock and it may be very nearly impossible to reestablish this trust. Once this confidence has been established any future dealings with the patient are extremely satisfying. If we could only establish the same kind of trust and confidence in our work, on the part of adults as is possible with children, our work would be many times more rewarding. This

period of building up confidence I have termed the "break in period". In many cases this period is very short, in others it may extend over several appointments. Its length depends upon the type of child with whom we are dealing, the age of the child, and upon our ability to manage the child.

A great many volumes have been written concerning a variety of psychological techniques which can be used in the successful management of children. No standard procedure can be outlined however, for the managing of children either in or out of the dental office, because each child is highly individualistic and our procedure must be altered to fit the personality of the child with whom we are working. The dentist must analyze the child's personality very quickly on the first appointment so that he may decide what his method of approach will be. If he has previously met the parents and the child, his task is much easier because he has had an opportunity to size up the child before dental work was necessary. If a dentist must expend most of his energy in overcoming his own fear of the child patient, he is greatly hindered in making any kind of an analysis, and it is practically impossible for him to even attempt to control the behaviour of his young patient.

Very few of us will admit that it is our own fear which prevents us from doing more work for children, but after all, as I pointed out before, it is a perfectly natural emotion that we experience under certain conditions but it can and must be controlled if our work is to be more pleasant and productive. I for one, on several occasions, have been all but inactivated by the fear of an expected encounter with a difficult child, particularly when I first began working with children, but I found that each success increased my confidence and I humbly present my own experiences on the subject for what they may be worth to you. It is not my intention to

underrate the problems which arise in the treatment of the so called "difficult patient", whether he be a child or an adult. It is certainly not an easy task but I do believe that we can make our work a great deal easier if we face the problem squarely instead of trying to avoid it.

THE CHILD

Let us now consider the child. How does he feel when he comes to our office? In most cases he is fearful of what is going to happen to him. He is afraid he will be hurt. If the parent or the dentist appear nervous, or if they suddenly become overly nice to him, he knows very well something is up and is immediately on guard. On the other hand the child may have decided that he is not going to submit to any kind of treatment and will use any device at all to avoid it. If a child's fear has been increased by exaggerated tales which he has overheard from adults concerning dentists, then the parents may have a struggle even getting the child to the office in the first place.

We are all inclined to underestimate the average child. It is true that he lacks experience but he certainly does not lack intelligence. A dentist must be "on his toes" to keep up with the active mind of a child. The man who can understand the mental activity of a child and can see the world as the child sees it, is indeed fortunate because he will have the patience and the understanding necessary for the successful management of children.

The curiosity which children display is perfectly natural; they are continually exploring their environment and we should see that they meet with pleasant experiences whenever possible. This need not be carried to extremes, however; as Dr. MacGregor so aptly puts it, (1) "It is not necessary to take the child on a 'Cook's Tour' of the office to satisfy his curiosity."* It is important, however, that

his many questions be answered promptly and truthfully. Deception has no place in the management of children. For the first few appointments in my own office I am always careful to explain exactly what is to be done, in as great detail as time will permit. I try to remain in plain view of the child at all times so that he will have no reason to be suspicious of what I am doing. Such instruments as forceps and syringes should not be on display in front of children, or adults either for that matter.

Psychologists have been telling us for years that childhood is the period of golden opportunity for the proper conditioning of the child. It is within our power as dentists to condition children in such a way that they will realize the importance of their teeth and have no fear of obtaining routine examination, and treatment if necessary, for the rest of their lives. This small part which we can play in the training of our children is in itself a privilege.

I feel that too many dentists make the mistake of becoming too friendly with children, and in so doing lose a great deal of their authority and control. It is one thing to be pleasant, kind, and considerate but it is quite another thing to become so familiar with children that discipline cannot be maintained. Most children are very conscious of "the spirit of fair play," and a dentist will have much greater success if he can make children realize that as long as they do their part he will be a very pleasant person and will treat them with consideration and kindness, but he will tolerate no nonsense on their part. Most children are more than anxious to cooperate, or "play the game" once they recover from their initial fear or distrust of the dentist. It is almost pathetic to see the extreme effort which some children exhibit in an attempt to overcome their fear and to cooperate as best they can. This type of child should be treated with the greatest

*MacGregor, S. A.—Child Psychology that Pays—Journ. Dent. Children 13: 53-56, 2nd Quart., 1946.

care and consideration possible. There is nothing which builds confidence faster in a child than the dentist's statement that he will not hurt the child, and then proceeding to carry through a painless operation and so keep his word. I am a firm believer in the use of local anaesthetic for most of the operative procedures in dentistry for children. It is only when I have the teeth anaesthetized that I can tell a child with any degree of confidence that I will not hurt him.

Very young children have not yet reached the point of reason or logical thinking. As they get older these reasoning powers increase. Any appeal to reason in the case of younger children is usually met with failure. This is particularly true of the children who have been poorly conditioned by their parents. Their home life has been such that they have been allowed to do pretty much as they pleased, and very little attempt has been made at any sort of discipline. This type of child is indeed a problem. In the dental office he will naturally try the same methods to express his likes and dislikes, and to control those around him that were so effective at home. These outbursts will quite often take the form of temper tantrums, in which the child will go through all kinds of contortions such as kicking, screaming, biting, gasping, holding the breath, etc. Most of these children in my opinion must be picked up bodily and placed none too gently in the chair. The sooner this is done the better, because no amount of persuasion will get these children into the operating room voluntarily.

In some cases of this type I do not hesitate to use the so called "towel treatment". I am rather hesitant, however, about mentioning the "towel treatment" because of all the criticism the procedure has received in past years. I think most of the criticism arises as a result of lack of understanding as to what is involved in the "towel treatment". Many dentists think that the "towel treatment" is

designed to choke the child, that it is an admission of defeat on the part of the operator and that the child will be permanently injured psychologically. If the towel treatment is used judiciously, it can be very effective and harmless. It simply consists of placing a clean towel over the child's mouth, and only his mouth. It is not placed in his mouth, or over his nose as so many seem to think. As the towel is held in this position, the dentist at the same time should talk into the child's ear and calmly tell him that as soon as he agrees to stop his kicking and screaming the towel will be removed and not until then. It is an effective way of showing authority and calmness in the management of the situation. Whether it is an admission of defeat or not depends upon the way in which it is administered. I have seen absolutely no ill effects psychologically, or otherwise, when the treatment is used as described above. If something forceful were not done in these situations and the child were allowed to escape treatment, then I feel there would definitely be psychological injury.

I admit that if this method is used as a last resort after the office has been completely upset and after a great deal of pleading, begging, bribing, and obvious frustration on the part of the dentist, it then is indeed an admission of defeat which is quite obvious to the child, and its effectiveness is completely lost. If the child sees that his tantrums are effective in avoiding treatment by upsetting the dentist and his parents, he will naturally try the same thing at the next appointment only with greater vigour. With these patients the battle must be won on the first appointment or, usually not at all.

In the practice of dentistry for children we are quite often called upon to treat sick children. In these cases it is useless to attempt any kind of training program. We must be content to patch the teeth up as best we can and advise the parents to consult

a paediatrician if it is deemed necessary. When the child is well again we can proceed with regular treatment. Any child will tire very quickly and in the case of sick children the treatment time is still more limited.

If a child has been kept awake all during the night with a raging toothache he will certainly be in no mood to cooperate with any dentist. If this is the case it is advisable to relieve the toothache with as little discomfort to the child as possible and proceed at a later date to complete any further treatment. As far as the parents of these children are concerned, who have allowed the teeth to go to such an extent that they abscess and cause toothaches, I think a few sleepless nights might be of great benefit in helping them to realize the seriousness of their neglect. It is unfortunate, however, that things must go to this extreme before action is taken.

THE PARENTS

A child's home environment will very accurately determine his behaviour. This home environment in most cases is controlled almost entirely by the parents, particularly the mother. As mentioned before, the parents can do a great deal of damage by discussing their own hardships in dental offices within earshot of the child. A young child is almost completely lacking in experience so that he believes every word he hears, particularly from his parents. He is totally unable to discount exaggeration. Adults must be very careful what they say in front of children because it is surprising to realize the meanings children derive from adult statements. If the parents "hate dentists", and "hate drilling", then the child immediately decides that he hates the same thing.

Some parents, even in this modern day and age, still resort to childish threats to make children behave, and quite often the dentist is one of the central figures in these threats. Is it any wonder that we have trouble man-

aging children who have been reared under conditions such as these?

If there is trouble within the home, or if the parent or parents are emotionally unstable, then we can usually expect the child to follow the same pattern. If a child sees his parents give way to fits of anger and rage, then he will in turn follow their example whenever the occasion arises, with perfect confidence that it is the right thing to do. Many parents who have not as yet reached the adult stage themselves, are indeed poor rearing agents for their children. Much information can be gathered concerning the child's personality after a short conversation with the parents. A typical example is the anxious mother who tells you immediately how many dentists the child has visited, and how high-strung and nervous the child is, and on and on ad infinitum. In these cases the main problem is with the parents because usually the child will give you very little trouble once you can get him into the office alone.

In my own office parents are very seldom admitted to the operating room. Occasionally, with the very nervous children I allow the mother to bring the child in and remain a few moments while I prepare to begin work. If the mother refuses to leave when I am ready to commence work, she is politely told that no work will be done for the child until she does leave, and that it is useless to continue if she does not trust me to do the necessary work as I see fit. I find that it is impossible to hold the attention of the child and do my work properly if the mother is breathing down my neck; furthermore the children of this type of parent will usually appeal to the mother in no uncertain terms if anything is done to their disliking. If the mother sympathizes with the child or interferes with your work by talking to the child, then you might just as well give up because in this case the mother and the child are

in supreme command and your authority is nil.

Parents are badly in need of dental education concerning their children's teeth. It is very important that we make them understand that these first teeth are not just temporary things which can be neglected, but that their maintenance and function is extremely important in the present and future health of the child. It is revealing to see how many parents believe that all of the first teeth are replaced at the age of five or six when the anterior deciduous teeth are shed. They do not realize that the deciduous molars are quite often not lost until the child is eleven or twelve.

It is interesting to observe all the bribery which takes place on the part of the parent in an effort to get a child to the dental office. This bribery often continues over a period of two or three days before the appointment and everything from ice cream cones to bicycles are offered the child if he will promise to go through with the impending dental appointment like a brave little gentleman. Parents who resort to these tactics have very little control over their children; they are much more concerned over the possibility of being embarrassed if the child does misbehave, and they are willing to go to almost any extreme to avoid such a possibility.

It quite often takes several appointments to convince the children of these parents that they have met someone who cannot be controlled by the methods they use at home. Once these children have been straightened out to this extent, they are just as easy to work for as any other child.

In my own experience I find that what I would call "bad children" are very few and far between, in fact I am not fully convinced that they exist at all. Most of our behaviour problems in dentistry for children arise purely from poor training in the home, and a little patience and understanding in treating these unfortunate children will lead to success.

To me, it is remarkable that so many children develop normally even in spite of their parents.

CONCLUSION

It has been impossible, in a limited paper of this kind, to do justice to a study as interesting and fascinating as that of child management as it applies to dentistry for children. A great deal of sound thinking and scientific research has been done by a great many people of different professions whose work has brought them into close contact with children.

There is no one, right way, of managing children; too many variables exist. I have attempted in this short paper to point out the various ways in which successful management of children in dental practice can be so markedly influenced by the harmony, or lack of harmony, which exists between the personalities of the child, the parents, and the dentist, with special reference to the fear emotion. A method which would lead to success for one dentist may lead to utter failure for another. A method which would be suitable for one child may be entirely unsuitable for another. Methods, or ideas, or "tricks of the trade", or whatever you may wish to call them, in themselves mean very little when it comes to managing a child.

It is my feeling that we must go much deeper than this and seek out the fundamental psychological principles which influence human behaviour. Why do children behave as they do? Why do parents behave as they do? Most of all, why do we as dentists break out in a "cold perspiration" whenever we are called upon to do dental work for a child. These are the vital considerations. These are the problems which must be solved by each one of us before we can even hope to evolve any kind of a comprehensive approach to dentistry for children.

If we are able to approach the situation with this deeper understanding

our reward will be great in the feeling that we are well on the way to fulfilling our responsibilities both to the public, and to our profession.

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Conclusions

De nombreuses personnes, qui à cause de leur professions ont bien connu les enfants, ont réalisé du travail de recherche intéressant et compilé des observations judicieuses.

Il n'y a pas de méthode unique de traiter avec les enfants; trop d'impondérables entrent en jeu. Cette communication a pour but de passer en revue les diverses façons de contrôler les enfants dans un cabinet de dentiste; l'attitude du praticien doit varier selon la compréhension plus ou moins grande qui existe entre les personnalités en jeu: enfants, parents et lui-même. Dans cet article, il sera aussi question de psychologie de la crainte.

Une façon de procéder admirable dans les mains d'un dentiste peut être désastreuse chez un autre. Un enfant répondra très bien à tel approche; un autre n'y verra que du feu. Des méthodes toutes faites, des panacées, des "trucs du métier," comme on les appelle, ne peuvent pas toujours s'adapter à un enfant en particulier.

Il nous semble qu'il faut attacher plus d'importance à ce problème et chercher les principes psychologiques fondamentaux qui exercent une influence sur les agissements humains. Pourquoi les parents adoptent-ils telle attitude? Pourquoi les enfants réagissent-ils de telle façon. Et, surtout, pourquoi, nous dentistes, nous sentons-nous désarmés quand il s'agit de traiter des enfants?

Là est le noeud de la question. Il nous faut trouver des solutions à ces problèmes, si nous voulons, chacun de nous, mettre en branle un programme compréhensif de pédodontie.

Faisons face à cette situation en réfléchissant sérieusement à ces données et nous serons magnifiquement récompensés, en songeant que nous nous acheminons vers l'accomplissement de nos devoirs envers la société et notre profession.

Antro-Oral Fistula: Report of Case

by W. A. CRICH, D.D.S., Grimsby, Ontario

A DENTAL complication involving the maxillary sinus may happen even to the most careful and well-trained operator, but the situation if handled properly will only cause trouble in a very small percentage of cases. On the other hand much discredit is due the operator, and in turn reflected on the profession by the surgeon who operates in this region without knowing how to properly handle this type of complication and its post-operative sequelae. If an opening is thought to exist the patient should be advised, and if the operator

does not feel competent to handle the situation, the patient should be referred immediately to a specialist who does. The opening should always be closed immediately, provided the antrum is healthy. If pus is present and a closure is made, a nasal-antral window is necessary.

The following instructions should be given to the patient. (1). He should be cautioned to blow his nose carefully during the next few days. If the nose must be blown the handkerchief should be held far enough away from the nose so that the nostrils will not be closed

and hence cause unnecessary air pressure on the affected side. (2). Smoking should be minimized, especially cigarettes, since the oral tissues appear to repair faster as there is less marginal inflammation. (3). The patient should be advised against any undue sucking action for at least 24 hours. (4). He should be informed that he might expect some bloody nasal discharge for a few days. (5). An astringent nasal spray such as Parpen should be prescribed and patient advised to use it four times daily for a week to ensure proper ventilation and hence prevent pressure building up within the maxillary sinus and forcing the flaps apart.

Chronic antro-oral fistulas of long duration are usually complicated. Polypoid degeneration of the antral lining covering the lower third or half of the antrum will usually be present and the normal ostium is seldom found open enough to ensure good ventilation. In these cases a nasal-antral window should be made.

This window should be of generous size and well down toward the floor of the nose, at the anterior portion of the antrum beneath the inferior turbinate bone. The plastic closure should be done about four weeks later, by which time the antral membrane will have shrunk and the polyps may have disappeared.

REPORT OF CASE

On September 4, 1948, Mr. S., aged 22 years, was referred to me with a large antro-oral fistula in the upper left first molar area.

History.—One month previously Mr. S. had had the upper left first molar removed on account of a severe toothache. Apparently an opening had been made into the antrum with the removal of this tooth, as immediately after, the patient complained of food and liquids passing from his mouth into his sinus and out of his nose. He had not been informed that an opening into his antrum existed nor had any repair been attempted or advised.

Three days later he began having dull pain in this area and pus began draining into his mouth.

Examination.—Examination of his mouth revealed a fistula approximately 1 cm. in width and filled with granulation tissue which exuded or extended down into his mouth (Fig.



FIG. 1

Photograph of model showing antral fistula on Sept. 4, 1948 before any treatment was instituted. Dotted line shows outline of flap which was raised on palate ten months later. Fistula had become one-third smaller in size at time of closure.

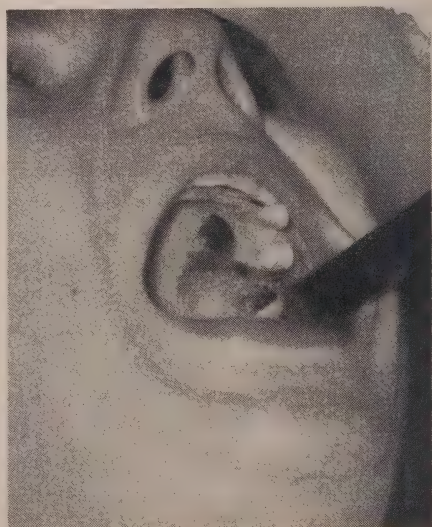


FIG. 2

Photograph showing flap raised and swung over to cover opening.

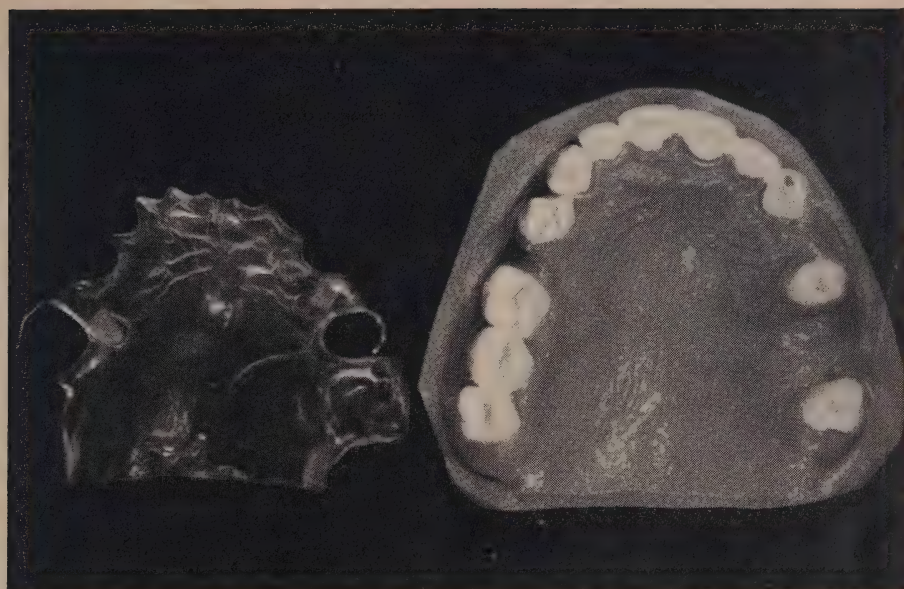


FIG. 3—Photograph of acrylic splint on left.

FIG. 4—Photograph of model made after complete healing had taken place.

I). Pus was draining from the fistula.

Treatment.—Mr. S. was referred to an oto-laryngologist to have a nasal-antral window made and the maxillary sinus treated. Dr. X. felt that he might clear up the antrum infection by washing, but after three weeks of treatment, became discouraged and made the window. The antrum infection cleared up quickly following this treatment, but the patient did not return to me for treatment until July 1949 at which time the opening had become about one-third smaller in size.

Operation.—On July 26, 1949, under local anaesthesia, the fistula was excised and the mucosa freshened. A flap was prepared on the hard palate con-

taining the anterior palatine artery. This was elevated and swung over to cover the opening and sutured in position with interrupted dermal sutures (Fig. II). A plastic splint (Fig. III) to completely cover the palate was inserted.

Post-operative Course.—Healing proceeded uneventfully and the sutures were removed on the tenth day. (Fig. IV).

Comment.—The use of a splint in this case helped to hold the flap in position. It also covered the denuded bone on the palate and made the excursion of food over this area much less painful. The splint was worn for ten days, by which time fresh granulation tissue had formed.

"People are very open minded about new things—so long as they are exactly like the old ones."

—Charles F. Kettering.

Good and bad men are each less so than they seem.—Coleridge.

"Reno—Where the cream of society goes to be separated."

Mass Control of Dental Caries by Fluoridation of a Public Water Supply

by H. K. BROWN, D.D.S., D.D.P.H., Ottawa, Ontario

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PRELIMINARY statement on a study of dental caries in Brantford, Sarnia and Stratford, Ontario, by the Department of National Health and Welfare, January, 1952.

The following is an amendment of the report issued in August 1951, by the addition of 1951 data obtained at Stratford, Ontario.

PURPOSE

Several studies in various parts of the world¹ have indicated that where the public water supply contains, from a natural source, between 1 and 1.5 ppm. of fluorine, the prevalence of dental caries is much lower than where fluorine is not present. These studies have also indicated that dental fluorosis (mottling) occurs to an increasing degree as the fluorine content rises above 1.5 ppm., but that it is mild or absent at and below that level, and that there are no detectable ill effects on general health.

To determine whether artificially fluoridated water would also be effective in reducing the incidence of dental caries, the City of Brantford, Ontario, undertook early in 1945 to add fluorine to its water supply.

HISTORY

Dr. W. L. Hutton, Medical Officer of Health, Brant County Health Unit, took the initiative in water fluoridation in Canada. On his recommendation, fluorine in the form of sodium fluoride was first added to the Brantford water supply in June, 1945, and a fluorine concentration of between 1.0 and 1.2 ppm. has been maintained in the water supply continuously since that time. A prefluoridation survey of the primary school population was carried out by the school dentist, Dr. B. Linscott, who

has also recorded the dental caries experience of these children annually since 1945.²

Subsequent to the fluoridation of the Brantford water supply, the Department of National Health and Welfare was approached in the matter of setting up a controlled study whereby dental caries in Brantford would be compared, over a period of time, with dental caries in both an area having a fluorine-free water supply and an area having a water supply which contained between 1.0 and 1.5 ppm. of fluorine naturally, and the responsibility of setting up such a study was undertaken by Dr. L. V. Janes, then Chief of the Dental Health Division. In 1947 the Department appointed Dr. H. K. Brown to undertake the work. The Ontario Dental Division, under Dr. Frank Kohli, volunteered assistance, as did Dr. G. L. Anderson, Medical Officer of Health for Sarnia, and Dr. H. B. Kenner, Medical Officer of Health for Stratford, and both of these cities entered the study as controls. (The water of Sarnia is fluorine-free, and that of Stratford contains 1.3 ppm. of fluorine from a natural source.) The Research Division of the Department of National Health and Welfare assisted in the statistical planning, and loaned the services of Miss Barbara Stewart in connection with the sampling as well as for consultative assistance in regard to the tabulations.

The first series of surveys was begun in Brantford in January, 1948, with examinations in Sarnia beginning in March of that year, and in Stratford in October. As Brantford had already undertaken the technical work connected with the addition of sodium fluoride to the water and had arranged for

daily water analysis under the supervision of Mr. Don Williams, the Brantford Water Works Engineer, the only responsibility assumed by the Department of National Health and Welfare was that of conducting a controlled study of dental caries.

During January, February and March of 1951, a second set of examinations was made in Brantford and Sarnia, and in October a second round of examinations was made in Stratford. This report gives a preliminary summary of results for all three places.

SELECTION OF CHILDREN FOR EXAMINATION

To be eligible for examination as a part of this study, a child must, at the date of survey, be at least six but not more than 14 years of age, and must not ever have been absent from the city concerned, for holidays or other reason, for more than six weeks at any one time. The study thus compares a group of children (Brantford) who have used an artificially fluoridated water supply continuously since July 1945 and before that date did not use fluoridated water, with a group (Sarnia) who continuously since birth have not had fluoridated water and a second group (Stratford) who have had naturally fluoridated water continuously since birth. "Continuously" is defined as including periods of absence of which none are of six weeks or more duration.

Residence eligibility as outlined above is determined from information filled in on slips which have been sent home with the child and filled in by the parent. Secondary schools, as well as primary schools, are canvassed for eligibles.

It was planned to examine, in each city, at least 500 children in each of the three age groups, 6-8, 9-11, 12-14. Since eligible children in Brantford totalled 2,426 in 1948 and 2,598 in 1951, sampling was indicated and was carried out in the following manner. The slips for Brantford eligibles were arranged, by schools, according to the location of the

schools throughout the city. Within schools, the slips were arranged by grade in numerical order of grade and in alphabetic order within grades. The slips for each age group were then numbered consecutively as arranged in this order, and sampled in sequence, beginning with a random start.

The distribution of children examined is shown in Table I by age group for 1948 and 1951. In Sarnia and Stratford, all eligible children were examined since in some age groups it was not possible to obtain even 500 eligibles and in the other groups the excesses which did occur were not sufficient to indicate that sampling there alone would be necessary. The extent of the excess in the 6-8 group in Sarnia resulted from the inclusion of the students of the village of Point Edward in the study in order to bolster the 12-14 group for Sarnia. For purposes of this study, Point Edward, which is contiguous with Sarnia, of suburban character, and served by the same public water supply, has been considered to be a part of Sarnia.

TABLE 1

Distribution of children examined at Brantford, Sarnia and Stratford, according to age group and year of examination:

Age Grp.	Brantford		Sarnia		Stratford	
	1948	1951	1948	1951	1948	1951
6-8 ..	619	579	669	691	505	497
9-11 ..	595	578	571	619	432	456
12-14 ..	593	585	486	506	371	395
Total	1,807	1,742	1,726	1,816	1,308	1,348

METHOD OF EXAMINING AND RECORDING

All examinations of the study have been conducted by the same examiner, using a portable dental examining light (Castle Specialist No. 46) kept at a constant distance, plane mouth mirrors and No. 5 Clev-dent explorers. The lowest limit in size for a caries lesion was defined as one in which the point of the explorer would stick and resist withdrawal, or in which softness was palpable. Hard stained surfaces and enamel imperfections were not recorded as caries. Interproximal edges or roughnesses capable of holding the explorer point were recorded as caries. Oral Hygiene was also recorded, as

"good," "fair," "poor." A classification of dental fluorosis (mottled enamel) as "questionable," "slight," "moderate," "severe" was adopted for recording purposes.

A semi-anatomical type of chart was used for recording. Both deciduous and permanent tooth caries was recorded, giving a value of one cavity to each tooth surface involved, regardless of the number occurring on any single surface. On the occlusal surface of the upper molars, the area of the central pit and that of the distal pit was each given a value of one surface. The same was done for the upper second deciduous molars. This gives a value of six surfaces to all upper permanent molars and to the upper second deciduous molars, and a value of five surfaces to all other teeth.

FINDINGS

Deciduous Teeth

The dental caries experience in the deciduous teeth of the children examined in Brantford, Sarnia and Stratford is shown in terms of df (decayed or filled) teeth in Table 2 and in terms of df surfaces in Table 3 following.

TABLE 2

df Deciduous Teeth Per Child Examined,
by Age at Examination

Survey and Year	6-8 yrs.	9-11 yrs.
Brantford, 1948	5.0	2.4
Brantford, 1951	3.6	2.2
Sarnia, 1948	4.9	2.5
Sarnia, 1951	4.9	2.4
Stratford, 1948	2.2	1.7
Stratford, 1951	2.6	1.8

TABLE 3

df Deciduous Tooth Surfaces Per Child
Examined, by Age at Examination

Survey and Year	6-8 yrs.	9-11 yrs.
Brantford, 1948	7.4	3.8
Brantford, 1951	6.7	4.5
Sarnia, 1948	8.2	4.5
Sarnia, 1951	9.8	5.1
Stratford, 1948	3.4	2.8
Stratford, 1951	5.1	3.5

Permanent Teeth

Table 4 following shows the dental caries experience in terms of DMF (decayed, missing, filled) permanent teeth per child, and Table 5 shows it in terms of DMF permanent tooth surfaces per child. (A value of three has been assigned to each missing tooth as

an arbitrary estimate of the carious surface index of such teeth.)

The attached chart summarizes graphically the data given in Table 5.

Attention is directed to the apparent increase in caries which has taken place between 1948 and 1951 in Sarnia and in Stratford where there is presumed to have been no appreciable change in either preventive or treatment services. The possible extent and direction of variations of this type must be taken into consideration when assessing the results in Brantford.

TABLE 4

DMF Permanent Teeth Per Child Examined,
by Age at Examination

Survey and Year	6-8 yrs.	9-11 yrs.	12-14 yrs.
Brantford, 1948	1.4	4.1	7.7
Brantford, 1951	0.9	2.9	6.1
Sarnia, 1948	1.6	4.2	7.9
Sarnia, 1951	2.0	4.5	8.6
Stratford, 1948	0.4	1.1	2.5
Stratford, 1951	0.8	1.8	3.1

TABLE 5

DMF Permanent Tooth Surfaces Per
Child Examined, by Age at Examination

Survey and Year	6-8 yrs.	9-11 yrs.	12-14 yrs.
Brantford, 1948	2.0	7.1	13.5
Brantford, 1951	1.2	4.7	10.6
Sarnia, 1948	2.5	7.5	14.4
Sarnia, 1951	3.2	8.2	15.5
Stratford, 1948	0.5	1.6	3.7
Stratford, 1951	1.0	2.5	4.6

TABLE 6

Per Cent of Children Examined Having
Caries Free Permanent Teeth, by Age
at Examination

Survey and Year	6-8 yrs.	9-11 yrs.	12-14 yrs.
Brantford, 1948	46.7	5.7	1.2
Brantford, 1951	59.2	17.1	4.3
Sarnia, 1948	41.0	6.1	0.6
Sarnia, 1951	32.7	3.6	1.2
Stratford, 1948	78.4	52.1	27.2
Stratford, 1951	65.2	35.7	22.0

Upper Incisor Teeth (Permanent)

Table 7 following shows the DMF upper incisor teeth per child examined in each of the three cities. The most striking effect of naturally fluoridated water has been consistently demonstrated on the upper incisors (1), and this pattern appears to be developing in Brantford under artificial fluoridation. However, as incisor teeth, fully formed on artificially fluoridated water are not due to appear in the mouths of Brantford children until about 1953, any effects observed to date must be

presumed to be mainly topical. Only a part of the central incisor enamel in the younger children of the 9-11 age group in Brantford will have been formed while the children were receiving artificially fluoridated water.

TABLE 7

Survey and Year	DMF Permanent Upper Incisor Teeth Per Child Examined, by Age at Examination	
	9-11 yrs.	12-14 yrs.
Brantford, 1948	0.34	1.05
Brantford, 1951	0.11	0.64
Sarnia, 1948	0.56	1.16
Sarnia, 1951	0.43	1.16
Stratford, 1948	0.01	0.07
Stratford, 1951	0.04	0.15

Oral Hygiene

Table 8 shows an assessment of the oral hygiene in each of the three cities. It is considered that any claim to a reasonable degree of validity of these figures rests upon the fact that all the examinations to date have been done by the same examiner. Classification and recording of oral hygiene was undertaken because it was considered that marked difference in oral hygiene as between the test and the control groups might conceivably affect the findings—or at least might be taken into consideration as a modifying factor, although not a strictly measurable one.

TABLE 8
Oral Hygiene

Survey and Year	Per Cent of Children Examined		
	Good	Fair	Poor
Brantford, 1948	34.3	30.6	35.1
Brantford, 1951	34.2	32.8	33.0
Sarnia, 1948	19.7	28.0	52.3
Sarnia, 1951	19.2	36.3	44.5
Stratford, 1948	17.8	37.5	44.7
Stratford, 1951	10.1	42.1	47.8

Dental Fluorosis (Mottled Enamel)

"Slight" mottling of the enamel in the form of tiny snowflake-like white patches was observed in the permanent teeth of about 15% of the Stratford children. It was also observed in the deciduous teeth of a small percentage of the Stratford children. Only two cases of "moderate" mottling were seen. These exhibited some small degree of brownish discolouration of the enamel which would not in the opinion of most dentists call for treatment to correct the appearance. No enamel

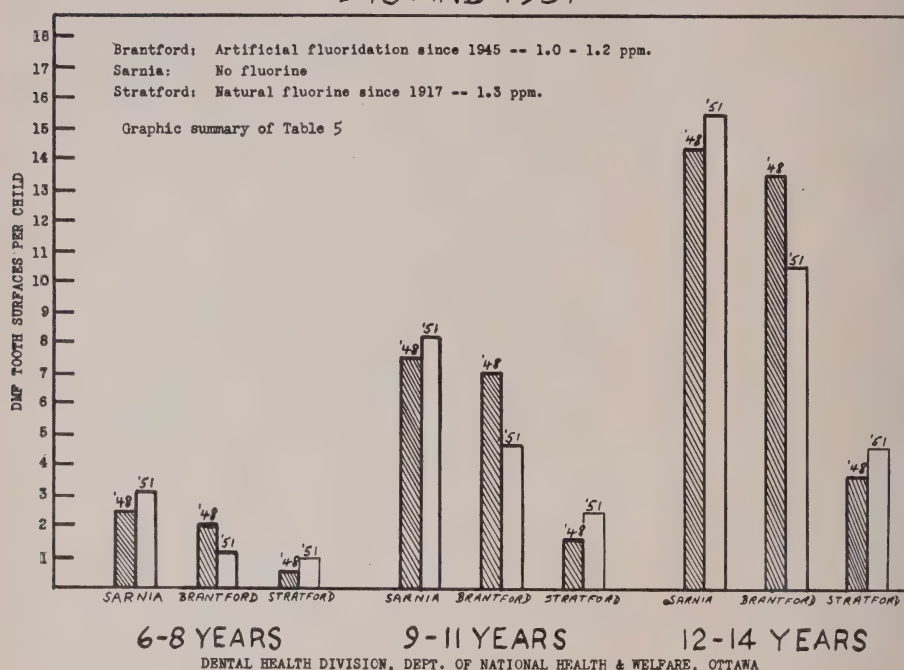
hypoplasia, (underdevelopment) associated with the mottling was observed. No cases of "severe" mottling were observed. A small number of cases of "questionable" mottling was seen in both Brantford and Sarnia. The number was about equal for both places. There is no reason to believe that the fluorine content of the Brantford water at its present level could cause detectable mottling.

SUMMARY

Although a comparison of certain findings of the 1951 survey with those of the 1948 survey indicates a reduction in caries in Brantford where the public water supply has been artificially fluoridated since 1945, sufficient time has not elapsed to permit a full evaluation of water fluoridation on the basis of this study. The first permanent teeth fully formed while the children were receiving artificially fluoridated water are only now beginning to erupt. The evidence will unfold as the eruption pattern develops. The 12-year molars of the children born in Brantford in 1945 will erupt in 1957. Until they have been exposed to the oral environment for at least two years, the full story cannot be told. In addition, the recordings so far obtained indicate both a higher treatment and an apparently better oral hygiene status of the Brantford children when compared with the controls, and it is therefore suggested that caution should be exercised in the interpretation of the rates shown. The lack of a prefluoridation survey on a comparable basis is a further limiting factor in interpreting the results.

Because of the possible complexities of the problem and the sparse amount of evidence so far available in regard to the extent and direction of the effects of artificially fluoridated water on the incidence of dental caries, it is suggested that any community considering the fluoridation of its public water supply discuss the matter fully with the local dental, medical and

PERMANENT TOOTH CARIES EXPERIENCE BRANTFORD, SARNIA AND STRATFORD 1948 AND 1951



water works authorities prior to taking any action.

It is pointed out, however, that any community undertaking fluoridation will be in a position to make a valuable contribution to the evidence now available by recording periodically the dental defects of its child population, beginning with a prefluoridation survey. It is hoped that where such surveys are conducted, uniform practices will be adopted; sound statistical procedures, coupled with a uniform method of carrying out dental examinations and recording data, would make possible the comparison of findings between different communities and thereby add much to the value of the evidence obtained. The Department of National Health and Welfare will be glad to give

any community the benefit of its experience in this field.

ACKNOWLEDGEMENTS

It is desired to acknowledge with sincere thanks the help and advice given by the following:

Miss B. J. Stewart, Statistician, Research Division, Department of National Health and Welfare.

Dr. W. L. Hutton, Medical Officer of Health, Brant County Health Unit, Brantford, Ont.

Dr. G. L. Anderson, Medical Officer of Health, Lambton County Health Unit, Sarnia, Ont.

Dr. H. B. Kenner, Medical Officer of Health, Stratford, Ont.

Dr. R. G. Ellis, Dean, Faculty of Dentistry, University of Toronto, and Chairman, Associate Committee on Dental Research of the National Research Council.

Dr. F. A. Kohli, Director of Dental Services, Province of Ontario, Toronto, Ont.

Mr. W. J. Murphy, Nutrition Division, Department of National Health and Welfare.

Dr. Bradley Linscott, Dental Officer, Brant County Health Unit, Brantford, Ont.

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"Having done my best today makes it much easier for me to do better tomorrow."

The Forum

THE DENTIST AND THE PHYSICIAN

by W. SCOTT HAMILTON, D.D.S., F.A.C.D., F.D.S.R.C.S.

Condensed from the Alberta Medical Journal, Nov. 1951

The physician, particularly in rural areas, is frequently faced with emergencies in the dental field. Some information that may be of assistance under such circumstances will be presented.

It requires a larger population to support a dentist than a physician and thus there are centres with medical service but without a dentist.

The rural practitioner of medicine is likely to be faced with certain acute conditions of the oral cavity which give rise to much discomfort. Because of the pain alone, to say nothing of possible bacteriemia or septicaemia, something has to be done for the comfort and protection of the patient.

When the physician is faced with an emergency such as mentioned above, he usually has no choice but removal of the offending tooth.

Tooth forceps are the instruments most commonly employed in removal of teeth but if improperly used, unnecessary fractures will result. A tooth must first be loosened by careful and deliberate rotation and luxation so as to break down the tissues immediately surrounding, and bring the roots into such a position as to be conveniently removed from their sockets. Excessive force will only increase the possibility of fracture, resulting in retained roots which cannot be removed without the skilful application of special instruments for the purpose.

Teeth should be removed only when they are hopelessly beyond such repair as will restore them to a state of

health and utility. For example, they should never be removed in order to provide drainage for the maxillary sinus. It is as equally unnecessary that they be lost in order to establish a feeding space when the mouth has to be closed, as in the treatment of fractures.

Painful tooth sockets should be irrigated with warm saline in order to remove saliva and food particles. The area should then be isolated, the contents of the socket absorbed with gauze or an aspirator and examined for necrotic or foreign material. A sedative dressing should then be lightly packed, completely filling the socket. After the first treatment most patients can, if necessary, administer the treatment themselves or have a member of the family do so. They should on the other hand, be seen as frequently as possible, and the packing discontinued when no longer necessary for relief of pain, substituting irrigation only, to remove food particles, otherwise there will be interference with tissue regeneration.

Suitable packing for surgical wounds in the oral cavity are numerous. Most of them consist of essential oils or their derivatives. Guaicol is a favourite, and old fashioned oil of cloves is very effective.

Vincent's infection is a topic which has caused much controversial discussion for many years. The practice of depending upon intra-muscular injections of antibiotics should be discontinued as the effect is too slow and

unnecessary destruction of tissue results. There is no objection to both local and hypodermic administration but the latter is not usually necessary; nor is chemotherapy alone sufficient. It is more important to cleanse the mouth with a mild solution. This is best applied by means of an atomizer. If this is followed by constant use of penicillin pastilles the painful stage will disappear in about a day and the acute phase will have passed in from four to seven days, and herein lies the danger. The patient feels perfectly normal and may even be pronounced cured, but that is seldom the case. If nothing more is done it may take on a chronic phase and the patient from time to time experiences acute attacks, less severe than the original. Many patients lose their teeth unnecessarily because of not having proper treatment by a dentist or periodontist who is familiar with the sequence referred to above.

Fractures of the facial bones are usually first seen by the physician or general surgeon. Reduction of all frac-

tures should be performed as perfectly as possible but in the case of the facial bones the intermaxillary relationship is of paramount importance. This is determined by the occlusion of the natural teeth, or artificial dentures if the patient is edentulous. Dentures should always be salvaged from an accident. Even if they are badly broken, they can be repaired, and are often most useful as splints.

Bandages in the treatment of fractures of the jaws are usually not indicated and often do more harm than good. A couple of simple wires extending between the mandibular and maxillary teeth is a simple first aid method.

A few words relating to haemorrhage following removal of teeth appears to be indicated. Adrenalin will cause sufficient contraction of a small, and even fairly large vessel to stop a haemorrhage but very often the effect is only temporary. Ligation or suturing and pressure, along with oxidized cellulose, when properly used, are our most effective methods and agents.

THE FAST-CURING ACRYLICS IN OPERATIVE DENTISTRY

by MARVIN K. RUBIN, D.D.S.

Condensed from N.Y. State D. Jour. Dec. 1951

The four main causes of failure in the insertion of the material are: (1) Movement of the matrix during the setting. (2) Seepage into the cavity—either saliva or blood or exudate from the gingival sulcus. (3) Uddue excess at the gingival margin. (4) Improper finishing. Of course, there are other aspects which are important, such as the type of mix, the time of insertion, the type of preparation, etc., but these factors are not as critical in their variation as are the above.

If the material is disturbed during its set, especially during the middle or rubbery stage, even if it is readapted to the walls of the cavity by retightening the matrix, it will no longer conform to the detail on the inner surface of the cavity on setting. The

most certain way to eliminate the variations in pressure caused by the movement of the fingers of the operator and the head of the patient is to use some type of mechanical matrix holder which holds the material firmly under pressure in the cavity during the entire course of its polymerization.

If there is seepage, saliva, blood or gingival exudate, this will not necessarily disturb the set of the fast-curing acrylic, though it may affect the aesthetic result causing darkening either immediately after insertion or at some later date. Thus, a dry field is absolutely necessary. The use of the rubber dam is indicated only where you are certain that the interproximal septum of rubber is at least 1 mm. from the

cavity margin, since when the rubber contacts the acrylic it causes a slowing of the setting, and a softening of the margin.

The filling should be placed with a minimum of excess at the gingival margin. Thus the matrix which is being used should conform as closely as possible to the gingival margin, and any gross excess should be removed immediately after the material has been inserted and while it is still soft.

The finishing of the gingival margin is best accomplished by using a sharp Bard Parker blade if there is only a small flash. This can be followed with a flame-shaped inlay finishing bur, or a 600L straight fissure bur.

The use of too much monomer will cause a greater tendency to discolour. Excess monomer will also result in greater shrinkage. Discolouration is also encountered where insufficient monomer is used.

SOIL, HEALTH, AND THE DENTAL PROFESSION

by JONATHAN FORMAN, B.A., M.D.

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Condensed from Jour. of Prosthetic Dent., Sept. 1951

I do not need to tell dentists that good nutrition is the key to good dental health and that is the only way of eliminating dental disease and its effects is to begin with the care of the teeth of young children. We are, dentists and physicians alike, all devoting our lives to patching up the bodies of sinners against the laws of hygiene. We are proud of the high character of our work and of the skills that we have to offer to the sick and diseased, but there should be no sick. We sometimes forget to tell the public that all organic diseases are not reversible. We may make repairs, but we can never restore the body to what it was before the disease struck.

I do not need to tell you that compulsory health insurance laws cannot make dental treatments available to all of the citizens. Not only would it require more than ten times the number of dentists now in practice, but it would cost so much that no people could afford it.

I do not need to tell you that recent surveys have shown that there is at least ten times as much dental work waiting to be done as there are dentists available to do it. Only one tooth in ten can, therefore, receive attention. Our welfare-minded citizens, without giving it too much thought, would like to nationalize the dental profession. They

would solve this problem by a scheme which might go a long way toward bankrupting the nation. Certainly it would lower the standards of your work. Prevention must, therefore, be the answer to the problem of adequate dental care.

We could do away with the need for dentistry in the next generation if we would give our nation the optimal diet that we know how to select.

Here we come up against a great obstacle to the solution of our problem, and that is the miseducation of our people by the hucksters who sell white flour, candy, and pastries, especially the sweetened varieties which, in addition to the sugar they contain, have a goodly quantity of phosphoric acid to help destroy our school children's teeth.

If, however, we could get the American people to have a new set of values and go on a diet of whole-grain flour, no sugar, vitamin-rich mineral, rich fruits, and leafy vegetables grown on soils of full fertility, teeth cared for under such conditions would last as long as their owner, even if he lived his rightful 120 years, and so would go begging the work of the exodontists. So, too, at the same time would disappear all those systemic diseases that go with infected teeth and which plague physicians so much.

So far in this paper you have been

urged to fight and fight hard against the socialization of your profession. I would add all the emphasis of which I am capable that you do this very thing, but I warn you that this is not one of those issues which can ever be settled. Those who believe in the teachings of Karl Marx, be they socialists or communists, or just fellow liberals, will not down. In truth, these "liberals" are not true liberals who believe in the dignity of man, but are "liberals" only in the sense that they are generous with the taxpayer's money. All of them are determined to redistribute American wealth and make paupers of all of us, and they will not stop — they will not

be defeated. They can only be conquered by the promotion of a true prosperity built upon production and upon surplus which we may use to promote health and happiness.

Every dentist and every physician who has a social conscience should make it his major job for the rest of his life to re-educate every person with whom he comes in contact to the dangers of social collectivism. We, as biologically trained citizens, must make our patients and our neighbours understand that group life based upon mutual co-operation with full individual responsibility is the road to sound and enduring social progress.

A STUDY OF THE CUTTING EFFICIENCY OF DENTAL BURS FOR THE STRAIGHT HANDPIECE

by E. E. HENRY, M.S.E., and F. A. PEYTON, D.Sc., Ann Arbor, Mich.
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Summary of paper in Jour. of D. Research, Dec. 1951

This study has been limited to a comparison of the efficiency of the fissure and inverted cone type of dental burs when cutting a material with a hardness similar to dentine. This permitted a comparison of bur types on a basis of design only and did not consider the endurance of the bur, or the tendency to become dull which would result if hard materials like glass or enamel were cut. The effect of bur size and composition as related to cutting efficiency were also studied to a limited extent. The physical factors of speed of rotation between the limits of 1000 and 8000 r.p.m., and force applied to the cutting instrument from 200 grams (0.44 pounds) to 750 grams (1.65 pounds) were studied. An effort was made to integrate these variables as far as practicable.

It was observed that the tungsten carbide burs examined cut at essentially the same rate as the steel burs when operated under comparable conditions, but the carbide burs retain their cutting edge longer. The carbide burs were more brittle and susceptible to breakage than steel burs when subjected to side pressure and torque

due to being embedded in the material cut.

The No. 557 fissure type steel bur with spiral axial grooves removed more material per unit time than burs with straight grooves when operated under the same conditions. It was observed that the spiral type bur showed a little greater tendency to become clogged with cut material than did the straight bur.

A pronounced difference in the amount of material removed per unit time by the inverted cone type bur as compared with the fissure type bur was observed. Although the No. 37 bur has only about one-third as much active area as the No. 557 fissure bur, it is capable of removing approximately five times the amount of material per unit time as the fissure bur. On a basis of unit active area this would indicate a ratio of approximately 15 to 1 in favour of the inverted cone type.

When using the No. 557 steel bur it was found that for each speed increase of 2000 r.p.m., between the limits of 2000 and 8000 r.p.m., the amount of material removed per unit time was

approximately doubled, while the applied pressure remained constant. Accordingly, the rate of removal increases rapidly at speeds greater than 4000 r.p.m., which is near the upper limit of most present-day engines.

When using a No. 557 bur with a constant energy input, a comparatively large increase in material removed is achieved when the pressure is raised from 200 to 500 grams. With an increase in pressure from 500 to 750

grams, the amount of material removed is increased, but the relative increase is less pronounced. With an inverted cone bur, however, this trend is reversed so that with increased pressure there is an increased rate of removal of material.

The results reported indicate that an increase in size of bur for a given type will result in greater amounts of material removed when other factors remain constant.

THE NEXT TEN YEARS OF LABORATORY ACCREDITATION IN NEW YORK

by ALFRED J. ASGIS, D.D.S., Ph.D.

Chairman, Prosthetic Dental Service Committee of the
Dental Society of the State of New York

Condensed from N.Y. Jour of D., Nov., 1951

The laboratory owners have problems involving their interests, business and craft. They should receive the attention and consideration of the dental profession. All of the business matters, as far as the record shows, can be settled through co-operation on the basis of the method of accreditation. They will not be settled by registration of the laboratory business. I can see no place for laboratory legislation, nor for the unwarranted strife that is being artificially promoted by those who seek legal status for the laboratory business, if we are to re-establish mutual goodwill.

We need no longer waste time and effort in idle debate on non-existent, so-called "controversial" issues of the imaginary "laboratory problem." There are no controversial issues in dentistry-laboratory relations. None have so far been stated. The profession believes in accreditation as the most practical approach to the solution of our mutual problems. Laboratory owners, like every other business, have their special problems of a business nature, and are entitled to solve them in the best way they know how; but for that, they need not encroach on dentistry, nor is it necessary to disturb our mutual relations.

How to maintain standards of quality, ethics, and fair practice, in processing procedures by commercial labora-

tories, are the three major problems, that concern the mutual interests of the dental profession and the laboratory owners.

It is becoming increasingly clear that the dental profession must recognize the seriousness of the present situation and endeavour to resolve the dilemma, which may be stated briefly as follows: Shall processing work for oral prosthesis remain an auxiliary service and a responsibility of the dental profession? Or shall processing work be transferred to an autonomous, independent business, which shall be in charge of the processing of replacement appliances? In case of the former, dentistry cannot share leadership in processing work with the laboratory owners. In case of the latter, qualitative standards, and other requirements of processing work, would be dictated by laboratory interests.

Many dentists have so far failed to recognize the idea of laboratory accreditation by the profession as a positive aim and a constructive method. They have also failed to see a threat to the unity of dentistry and of dental practice by an independently organized laboratory-craft, with legal status and engaged in rendering service directly to the public. The conception of a distinct service directly to the public, in "dental technology" by laboratory in-

terests, is being recurrently expressed in laboratory literature.

Coercion, intimidation, threats, or force, should not be tolerated in accreditation activities. Accreditation is a serious and responsible plan that cannot show immediate results.

The present crucial situation demands that the following requisites be met to effectuate the accreditation plan in the State of New York in the next ten years.

1. There is need for more active support of the accreditation plan of 1951 by the general membership of the State Dental Society.

2. There is need for a united dental leadership that supports the accreditation plan. Evidence of such unity is lacking.

3. There is need for a strong national

policy—and a well-defined program—on accreditation, to promote success for plans on state levels. The national program is still in a “state of flux.”

4. There is need for orientation of the profession in the quality-responsibility concept and objectives of the New York State Plan for Laboratory Accreditation.

5. There is need for a substantial budget to carry out an action program of accreditation efforts. The budget must not dictate the accreditation program. The formulated program must dictate the budget. The results of efforts in accreditation will also depend upon which budgetary policy is followed.

The future success or failure of the accreditation system is in the hands of the dentists themselves.

FOCAL INFECTION

by MALCOLM WALLACE CARR, D.D.S., F.D.S.R.C.S., Director of Oral Surgery, Metropolitan Hospital, New York; Lecturer in Oral Surgery, Graduate School of Medicine, Univ. of Pennsylvania.

Excerpt from report to be given at the 11th International Dental Congress, July 1952, as published in the International Dental Journal.

Clinical experience indicates that every pulpless tooth, and certainly a pulpless tooth with evidence or a history of periapical infection must be regarded with serious suspicion, particularly when search is being made to determine the portal of entry of infection in cases of infectious or degenerative constitutional disease. Evidence of periapical chronic rarefying osteitis, as shown in the roentgenogram, is usually the result of pre-existing or concurrent active infection. The certainty of total and permanent eradication of periapical infection is doubtful or at least problematical without removal of the infected teeth. The present attitude toward focal infection is that certain diseases may be directly caused by some focus of infection; and, furthermore, that systemic treatment of certain diseases is certainly more effective following the elimination of focal infections. Clinical experience, therefore, indicates that in some instances the role of focal

infections may be exciting, in other instances contributory, and perhaps most frequently, predisposing. It is generally recognized that a local infection anywhere in the body contributes to lowered resistance, and consequently becomes a predisposing factor in the development of disease. Therefore, one of the strongest reasons for eliminating oral sepsis is that thereby at least one source of infection is removed, and general constitutional resistance may be improved. No clinical experience can validly support a policy of complacent tolerance for oral infection. Irrespective of its extra-oral or systemic relationships, oral infection should be effectively eliminated. The importance of directing attention to oral sepsis is emphasized when it is recognized that not only the incidence of oral sepsis, but also the magnitude of the local infection is probably, if not actually, higher than that of existing infections elsewhere in the body.

CANADIAN DENTAL ASSOCIATION

REGULATIONS GOVERNING THE AWARD OF STUDENTSHIP

1. The Canadian Dental Association through its Research Committee offers financial assistance in the form of "Studentships" to undergraduate or graduate students who have given distinct evidence of capacity for original research (or who have won distinction in scientific study during their University training) and who desire to prepare themselves further for scientific research and teaching by continuing their study in the sciences fundamental to their research fields.

2. The Studentships are available on equal terms to men and women for the purposes of

(a) An academic year of special study in the fundamental sciences at a recognized University. Grants will be made on an annual basis and applications for renewal will be considered.

(b) Consultations with recognized authorities. Applications in this category will be considered only under exceptional circumstances, such as to obtain assistance for occasional attendance at special meetings of research workers or special conferences with workers in the same field.

3. Studentships are awarded to applicants who are deemed best qualified by the evidence submitted. They are not intended to provide opportunities for graduates in dentistry to prepare themselves as specialists in certain fields of dental practice.

4. The age of the applicant and marital status will be important considerations when making an award. Previous training will also be taken into account.

5. Application for a Studentship must be made by the candidate to the Research Committee of the Canadian Dental Association and addressed to this Committee, care of the Secretary, Canadian Dental Association.

6. Application forms are available at the Canadian Dental Association office on request.

7. An applicant shall submit a transcript of his University record together with a statement from his sponsor who may be the Dean of a Dental School or head of a scientific department within a university, showing that, in his estimation, the applicant is worthy of training for scientific dental research.

8. The candidate shall state the institution at which he intends to study and describe specifically the plan of study he intends to pursue. A statement from the head of the institution at which the student intends to take his training, stating the institution's willingness to accept the student, should be submitted.

9. Applications for the ensuing year should be received before the first of May.

10. Applicant is required to make a comprehensive statement regarding his finances. He must state how much extra financial assistance he requires to complete the proposed course of study, how much of the total expense, if any, is covered by salary from the institution where he intends to study and how much by means of personal expenditure, loan, etc. Payments will be made during the period the Studentship is held.

11. All apparatus and materials purchased with grants become the property of the Canadian Dental Association and must be returned to the Canadian Dental Association at the end of the tenure of the Studentship unless a specific release has been provided for, either to the individual or to a specified institution.

12. Part-time teaching in a university department or faculty may be considered favourably during the terms of tenure of the Studentship.

13. Interim reports on the student's progress may be requested from the Dean or head of the department in which the student is working. The Canadian Dental Association reserves the right to discontinue the Studentship after reasonable warning is given the student, if progress reports are unsatisfactory. The final report prepared by the student and supported by the Dean or head of the scientific department, indicating in some detail the results accomplished in the study, must be submitted to complete the tenure of the Studentship.

14. Funds may also be made available at the discretion of the Committee for the publication of scientific articles.

Address all communications to:

The Secretary,
Canadian Dental Association,
234 St. George Street,
Toronto, Ontario.

GOLDEN JUBILEE CONVENTION

Vancouver, June 15-18

CLINICIANS



PHILIP JAY, D.D.S., M.S., Sc.D.

University of Michigan

An authority on and director of Fluorine research project at Grand Rapids.

Subjects:

"Present Status of Dental Caries Control Measures"

"The Role of Fluorine in Dental Caries Control"



**H. M. WORTH, F.R.C.P. (C), M.R.C.S.,
L.D.S. (Eng.), F.F.R., D.M.R.E. (Camb.)**

Lecturer in Radiology at the University of Toronto. Studied both Medicine and Dentistry at Guy's Hospital, London, (living here at present) noted scholar and lecturer.

Subject:

"Some Aspects of Dental Diagnostic Radiology"



JOHN KURATLI, D.M.D., F.I.C.D.

Portland, Oregon

Clinical Associate in Dentistry, University of Oregon, Portland, Oregon.

Widely cliniced in both United States and Canada. Has reputation for aptitude in imparting knowledge.

Subject:

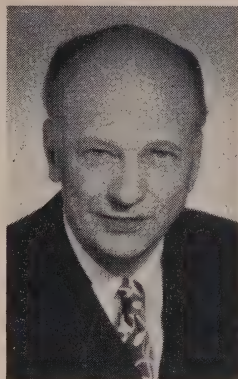
"Inlay, Crown and Bridge"

EARL POUND, D.D.S.**Los Angeles, Calif.***Early schooling in Vancouver, his home town.
Commander, D.C., U.S.N.R.*

Oral reconstruction division naval base hospital. Many presentations before American Society of Prosthodontists. To make a presentation before 11th International Dental Congress in London, England, this summer.

Subject:

"Prosthetics"

**GEORGE M. HOLLENBACK, D.D.S.,****M.S.D., F.A.C.D.****Los Angeles, Calif.**

An inventive mind and a master technician. Has done much research and is instrumental in establishing through the American Bureau of Standards—standards in golds and its alloys.

Subjects:

"The Science and Art of Dental Casting"

"The Place of Amalgam in Operative Dentistry"



LECTURES: "Prosthetic Dentistry" by Dr. Saul Robinson, Portland, Oregon, and "Oral Surgery for the General Practitioner" by Dr. Roy West of Seattle.

GROUP CLINICIANS: Dr. D. G. MacIntosh, Toronto, on Periodontia; Dr. G. D. Stibbs, Univ. of Washington, on Operative Dentistry; Dr. D. H. Hagen, Seattle, on Operative Dentistry; Dr. A. G. Racey, Montreal, on Pathology; Dr. R. R. McIntyre, Calgary, on Orthodontia; Dr. D. H. Gylenberg, Long View Wash., on Operative Dentistry; Dr. B. Jankelson, Seattle, on Prosthetic Dentistry; Dr. J. Ingle, Univ. of Washington, on Endodontia; Dr. A. A. Schultz, Seattle, on Operative Dentistry; Dr. F. L. Jacobson, Univ. of Washington, on Operative Dentistry.

GOLF: Write to Dr. R. J. Stewart, 4534 Dunbar St., Vancouver, stating handicap if you wish to enter competition June 16.

ART EXHIBIT AND HOBBY SHOW: With your cooperation this year's display will be outstanding. All forms of art are eligible for display—oils, water colours, etchings, photographs, wood carvings, sculpture, metal work, etc.
Please contact Dr. J. S. Bricker, 1513 Medical-Dental Building, Vancouver, B.C. at your earliest convenience.

LADIES' PROGRAM: Evening Musicales: Cruise on the S.S. Lady Cynthia: President's Dinner and Dance: Coffee Party and tour of five beautiful homes.

ANNOUNCEMENTS

● **THE BOARD OF GOVERNORS' MEETING** of the Canadian Dental Association will be held at the Hotel Vancouver June 11-14. These meetings are open to all members of the C.D.A. and those holding official positions in any Canadian dental organization are especially urged to be present.

● **TRAVELLING RATES TO THE JUBILEE CONVENTION** in Vancouver. Authorized dates for starting the trip are as follows:—From stations on Western lines (West of Fort William and Armstrong) starting dates are June 7-13. From stations east of those points, with the exception of Newfoundland, starting dates are June 4-10, and from Newfoundland June 1-7. Identity certificates may be had from the Secretary of the C.D.A. at 234 St. George Street, Toronto and are necessary in order to secure reduced rates.

● **REGISTRATION FEE FOR GOLDEN JUBILEE MEETING** is \$15.00 which may be sent to Dr. Chas. M. Whitworth, 218 Medical Dental Building, Vancouver, with request for hotel reservations.

● **THE 85TH ANNUAL CONVENTION OF THE ONTARIO DENTAL ASSOCIATION** will be held in the Royal York Hotel, Toronto, **MAY 11-14, 1952.**

● **FOURTH MARITIME DENTAL CONVENTION**, Lord Beaverbrook Hotel, Fredericton, N.B., **JULY 7-9.**

● **AMERICAN DENTAL ASSOCIATION Convention**, St. Louis, Mo., **September 8-11, 1952.**

● **28TH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** will be held in Montreal **OCTOBER 22-24, 1952.**

● **AMERICAN DENTAL SOCIETY OF EUROPE**, Annual Meeting at the Royal College of Surgeons, Lincoln's Inn Fields, London, July 15. Hon. Secretary, F. Douglas Derrick, 140, Park Lane, London, W.1.

● **POSTGRADUATE COURSE IN ORTHODONTIA** for practising orthodontists only, for two weeks beginning January 25, 1953, at Temple University, Philadelphia, under the direction of Dr. Robert H. W. Strang. Fee \$150.00 exclusive of instruments and books. Apply to: Dr. Louis Herman, Temple Univ. School of Dentistry, 3223 North Broad St., Philadelphia 40, Penn.

● The Argentine Ambassador for Canada, Augustin Mores Moartinez, invites members of the dental profession in Canada to attend the **FIRST PAN-AMERICAN UNIVERSITIES' CONGRESS OF ODONTOLOGY** which is to be held at Buenos Aires, Argentina, under the Patronage of the Argentine Government and Eva Peron Foundation, and which is organized by the Faculty of Odontology of Buenos Aires University between the 4th and 10th of next May.

● **THE SIXTH ANNUAL MEETING OF THE AMERICAN ACADEMY OF DENTAL MEDICINE** will be held at the Mount Royal Hotel, Montreal, Canada, on Thursday, Friday and Saturday, May 29-31, 1952.

On May 29, there will be a registered pre-convention seminar of courses on oral medicine, dental pathology and psychosomatic factors of dental practice.

The regular meeting program will further include a series of lectures and clinic discussions on dento-medical subjects. A program of sight-seeing and entertainment is also being arranged.

ALL MEMBERS AND INTERESTED DENTISTS AND PHYSICIANS ARE CORDIALLY INVITED TO ATTEND. Full details as well as reservations for registrants and their families are available through: (1) Dr. A. Laferriere, 3689 Park Ave., Montreal 18, P.Q.
(2) Dr. H. H. Pearson, New Birks Bldg., Montreal, P.Q.
(3) Dr. W. J. Johnston, 1414 Drummond St., Montreal 25, P.Q.

The Academy was organized in 1945 "To promote the study and dissemination of knowledge of the cause, prevention and control of disease of the teeth, their supporting structures and appendage parts, and related subjects, and to foster and promote a better scientific understanding between the fields of dentistry and medicine". It has an international membership of approximately a thousand.



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Editorial

HEALTH WEEK IN CANADA

HEALTH WEEK has come and gone, a special time set aside to emphasize in the mind of the average citizen the importance of a healthy body, the prevention of disease, the necessity of early diagnosis in the graver forms of disease particularly, and in this noble effort dentistry has played and will play its part in perfecting the health of the Canadian people. When one thinks of the sacrifice, of the splendid effort put forth by the leaders in this field of endeavour, one is reminded of this saying by W. E. Hocking: "What they have done to the least and in the least corner of the unsurveyable swirl of world happenings, they have done to the Highest."

We should glory in the striking decline in mortality rates in many diseases, the wonderful discoveries in medicine and surgery, the effective research in nutrition and in mental health, the greater use of preventive treatments and the wide extension of hospital service, but still to be mastered is the ideal treatment for cancer, tuberculosis, heart disease, rheumatism and the proper care for those in the old age bracket, etc. In the dental field we should mention particularly dental caries and periodontal disease. This can be accomplished if we work hard enough, love enough and have faith enough.

There were 72 deaths from diphtheria in 44 Canadian municipalities in 1944 and only 18 in 1949. Canada is forging ahead in the battle against tuberculosis. It is estimated that there are 40,000 cases in this country, many of them undiagnosed. 18,000 are in sanatoria and the majority will not die but will have 10, 20, maybe 50 years of productive work.

There are an estimated 180,000 diabetics in Canada, plus a further 70,000 persons who have not yet discovered that they have diabetes. Education is the key to this problem. Diabetics should be encouraged to help themselves.

Only through more effective methods of treatment of cancer can this disease be brought under control. A million dollars is raised each year by public sub-

scription to fight cancer but the important thing at present is to assist Canadians in detecting the early signs of this dread disease while there is yet time to arrest its development.

It is estimated that more than half a million people in Canada are suffering today from some form of disease of the heart and blood vessels and each year these diseases constitute the largest group of causes of death in the country. Much can be done to help people even if we don't know yet the cause of rheumatic fever, high blood pressure and hardening of the arteries.

There are as many patients in Canada's mental hospitals as in all the country's general hospitals put together. Poor mental health disables more people than tuberculosis and cancer combined. Canada is in the forefront in promoting positive mental health and wholesome human relations. "When the fight is won Canada will be a sturdier and a richer country."

Arthritis and other rheumatic diseases cost Canadian business 9,500,000 working days each year and cost Canadian workers \$70,000,000 in lost wages alone. About 100,000 Canadians are partially or totally disabled by these diseases, of whom about 15,000 are confined to bed or a wheelchair—the mother no longer able to care for her children, the breadwinner unable to continue the proper support of his family, the daughter tied to the home through the need to care for a bedridden parent, and the child who must never run and play with other children. Yet much of the present disability and deformity resulting from this group of diseases is quite needless. Early diagnosis and prompt treatment can help 70 to 80 per cent of the victims of rheumatoid arthritis.

Then there is the problem of the aging. Years ago most of our people died comparatively young. Today men and women are living longer, thanks to modern medical practice and public health agencies, and these older men and women are demanding added enjoyment and satisfaction in their later years. Dentistry can do much to assist in this problem. We must also help to keep executives fit. We can all do much in disseminating the knowledge gathered by our Canadian Health League through the channels of our daily practice.

It is particularly important that our younger men assume greater responsibilities in matters of public health and in the prevention of disease in general—dental disease in particular. I recall the words from that fine Canadian novel "The Yellow Brier"—"Here's to the outworn old hearts who built this nation and to the fun-loving young hearts who have it in their keeping."

We know that the world is in great turmoil, a condition which Mr. Churchill once described as "A world of monstrous shadows, moving in convulsive combinations through vistas of fathomless catastrophe." Be that as it may, while conditions permit it behoves us to build up the health of our nation, give the nation's children a good start in life, lighten the burdens of those who are sick and do much in preventing that sickness, and in all this dentistry must play its noble part. Let us get on fire for this National Health program. Marshall Foch once said, "The human soul on fire is man's greatest weapon."

M.H.G.

"Someone has figured out that the peak years of our mental activity must be between the ages of four and eighteen.

At four we know all the questions.

At eighteen we know all the answers."

"About the time you are important enough to take two hours for lunch, the doctor limits you to a glass of milk."

BOOK REVIEW

The Temporomandibular Joint by Bernard G. Sarnat, M.D., M.S., D.D.S., F.A.C.S., Professor and Head of the Department of Oral and Maxillofacial Surgery, College of Dentistry, Clinical Assistant Professor, Dept. of Surgery (Plastic Surgery), College of Medicine, University of Illinois. Diplomate of the American Board of Plastic Surgery. Contributors: Allan G. Brodie, D.D.S., Ph.D.; Harry Sicher, M.D.; John R. Thompson, D.D.S., M.S.D., M.S.; Joseph P. Weinman, M.D.; Arnold Zimmerman, Ph.D.; 148 pages; 50 illustrations. Published by Ryerson Press, Toronto, Ontario.

This subject, until recent years, has been surrounded by a haze of mystery. The position of some of its structures has made radiographic and visual studies of a three dimensional nature difficult. Anatomical dissections have not been completely satisfactory. They are usually conducted on an afunctional and static level. It is also a fact that very few physiological studies of the component elements of the joint have been made. All these factors have made the temporomandibular joint difficult to understand and as a result, rather vague and unsubstantiated phenomena, both physiological and pathological have been attributed to it. Much of the haze is dispelled by this short but informative book.

Dr. Sicher, a foremost anatomist, contributes to three different chapters. The first, which is a fine study on the functional anatomy of the joint, is refreshingly different to most anatomical studies. He not only describes anatomical elements but gives a functional rationale to the components. He differs with most authorities, for example, when he refuses to associate the internal (medial) pterygoid muscle with lateral movement, and suggests that the deeper fibres of the masseter muscle help in the retraction of the mandible.

He is also the first anatomist, in this reviewer's opinion, who ever stated that the external (lateral) pterygoid muscle need not be employed in the opening movement of the mandible, thereby permitting a hinge axis, though strained in the condyle. Some will argue that the movement may be performed without strain.

Sicher steps out of his field long enough,

however, to misstate that:—"the buccal cusps of the upper and the lingual cusps of the lower teeth bear the brunt of the work", in his analysis of grinding movements. The reverse is the case. The wear pattern on teeth is always the lingual cusps of the upper teeth and the buccal cusps of the lowers.

Together with Weinmann he writes a short but interesting chapter on the physiology of the temporomandibular joint. This chapter was somewhat of a disappointment to the reviewer because more information is available on the synovial membrane and synovial fluid than is supplied. These components are rather sketchily mentioned, although the other components are discussed more fully.

Sicher and Weinmann also collaborate on a chapter dealing with pathology. They describe the effects of nutritional disturbances as well as hormonal disturbances upon the joint. Rheumatoid arthritis, bruxism and overclosure are dealt with in a manner which supplies some of the information which the average dentist often feels he must some day acquire.

Dr. Allan G. Brodie offers a readable chapter on the growth factors which is of utmost importance to the profession. His research in this field is well known and is a great contribution to dentistry.

In another chapter Dr. Brodie still maintains the view which he held in former years, that the external pterygoid muscle is the chief actor in the opening movement of the jaw. Dr. Sicher, on the other hand, and in the same book, quite properly delegates this muscle to its role among several other muscles in the synchronized activity engendered by the opening movement of the mandible. There are very few *prima donnas* in the harmony of muscular activity.

Dr. Zimmerman deals with Costen's syndrome and explodes some of the erroneous theories of Dr. Costen and some of his disciples. There are many articles in both medical and dental literature based on Costen's observations. Most of these have not been thoroughly investigated. Being a professor of anatomy, Dr. Zimmerman gives anatomical substantiation to his views, pointing out how some of the phenomena indicated by Costen are anatomically improbable. Bite openers for deafness, beware!

Dr. Thompson completes the book with the final chapter which deals with the centric and rest positions of the mandible, its relation to the maxilla and the effects of some types of malocclusion on the joint. He supplies several case histories for illustration. These are

problems which many dentists encounter and are often at a loss for an answer.

The book is a welcome addition to the dental literature. It will enrich most dental libraries. For the busy dentist this book is a condensed post-graduate course.

C. H. MOSES

ROYAL CANADIAN DENTAL CORPS NEWS

1. The Royal Canadian Dental Corps regrets the sudden death of Major R. S. Kinney at Regina on February 13, 1952. Major Kinney was graduated from the University of Toronto '32 and practised dentistry in Bissett, Manitoba, prior to being commissioned in the Canadian Dental Corps in June, 1940. Proceeding overseas in March, 1941, Major Kinney served in the U.K., Italy and Northwest Europe, being promoted Major in October, 1945. Continuing in the Service on his return to Canada, Major Kinney was stationed at Fort Churchill, Halifax and at Regina. Of a kindly and retiring nature he will be sincerely missed by his many friends in the Canadian Forces.

2. Dr. G. A. Gelinas of La Tuque, Quebec has been appointed in the rank of Captain to the R.C.D.C. Captain Gelinas was graduated from University of Montreal in 1947.

3. A number of airwomen are being employed as dental assistants in clinics located at R.C.A.F. Stations across Canada.

Winnipeg dentist heads dental service for Canadians in Korea:—The following letter was received from Lt.-Col. G. E. Shragge by Lt.-Col. W. W. Wright of Winnipeg, Manitoba, dated Korea, Feb. 4, 1952.

In answer to your questions, I shall try to describe our dental establishment in the far east.

We have a total strength of 51, including 11 officers, two in administration and the other nine are dental operators. At present I have seven in Korea and two in Japan and the R.C.N. is also serviced by the latter.

In Korea the dental operators and assistants are attached for active duty to the various units, except one operator who remains at Headquarters.

We have at HQ. some 30 men. The boys all operate in mobile clinics, com-

plete with generators for light. This winter we have had problems with cold such as anaesthetics freezing, etc., so I installed gasoline tent stoves in the clinics and all has been well. We have two American mobile clinics with us and these are superior to ours as they have a forced draft heating system and a hot water tank. Our Directorate are working on a new clinic, combining the better features of both clinics, and we are hoping for a good result.

I have been doing a lot of tabulating and should be able to give our Director some data when he visits us. We are very mobile and in all have some 30 vehicles including trailers for the generators.

In this theatre we must all live on the land. There are no buildings that are livable and everyone is under canvas. My office and quarters are in a BLR's mobile which is most comfortable. I am quite proud of my little set-up and the boys are all doing a grand job.

In other words, #25 Cdn. Field Dental Unit is self-contained, mobile and we carry all our own stores, both ordinance and dental.

Working for a Combat Brigade is quite different to that of a Division. The Combat Brigade is in action practically all the time and without exception every dental officer has been subject to shell fire.

I thought having spent some six years in the field overseas in World War II that I had a fair idea of this theatre. However, I am learning more every day and at times realize how little I did know.

I have a centralized laboratory at HQ. using two mobile dental clinics and this has functioned exceptionally well. Our "milk run" to the various units three times per week fill up and return all the work.

Best of luck and many thanks for your interest in our work. My two red heads (wife and child) reside in Ottawa.

(Signed) Gerry Shragge

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

ANNUAL MEETING AT VANCOUVER

Board of Governors Meeting
June 11-14

Convention—June 15-18

An attractive brochure is going forward by mail to each member of the Association. This leaflet gives details respecting the meeting together with an outline of the tentative program. Your decision respecting attendance should be made now and your cooperation is requested in returning the reservation blank promptly. For those members east of Manitoba we request that you fill out the train reservation questionnaire and return to C.D.A. headquarters so that train equipment may be arranged for in order to accommodate you.

Official Notice re Resolutions for Annual Meeting: Resolutions originating with recognized dental organizations will be received for presentation at the forthcoming Annual Meeting of the Canadian Dental Association up to and not later than May 12, 1952. Resolutions forwarded should clearly indicate the organization of origin and also that the resolution has the approval of that organization.

Do We Need More Dental Research?

—The following excerpt is taken from a letter written by a prominent layman last August.

"For instance without prejudice, and with some apology, I might indicate a belief that a large portion of the public is becoming increasingly convinced that a considerable section of the dental profession does not seem to be interested in functioning as dental physicians.

"By this I mean that a great many practising dentists seem to have reduced their operations to a mechanical formula with the aim of making a good living and without any special interest in the general health of their patients, in relation of dental science to other ailments of the body, or in keeping themselves posted on the progress in their fields.

"This is a wide question and might be applied to almost any profession. Rightly or wrongly, the dental profession is becoming more widely accused in this regard than many others.

"Many dentists would like to practice as dental physicians, but believe that more knowledge is necessary to make

this wish come true. Are we as a profession going to sit back and not challenge a situation like this—or are we going to do everything within our power to encourage dental research particularly in the basic subjects, put the new knowledge thus acquired into use in our practices and show the public that we are dental physicians with public health and welfare our chief concern?"

Procedure—Re Magazine and Newspaper Articles: To further the interests of the profession and to ensure accuracy of statements respecting dentistry reaching the public it is highly desirable that a uniform procedure be followed by members of the profession, before allowing material to be released to the public press.

The Public Relations Committee, on behalf of the Canadian Dental Association, will on request, review articles related to dentistry which are in the course of preparation. The following suggestions should assist the dentist to avoid possible embarrassment that might follow the publication of statements attributed to the dentist.

Before the interview it is a wise procedure to require a promise from the reporter or writer involved, that he will submit a copy of the article to the dentist before it is published. The reporter or writer should be advised that the dentist intends to submit the material to the Public Relations Committee of the Canadian Dental Association. It should also be thoroughly understood that the dentist and the Public Relations Committee of the Canadian Dental Association will be accorded power of editing.

Most writers and editors will welcome the opportunity of receiving the endorsement of the Canadian Dental Association before the material is published. Writers and publishers appreciate the value of avoiding the controversies which frequently follow the publication of scientific material. At each regular annual meeting of the Canadian Dental Association, the Public Relations Committee provides a service to the press, to assist them in obtaining accurate statements concerning scientific material presented and if any member of the Association is approached for interview during the period of a meeting he will be well advised to request the assistance of the Committee.

Army Benevolent Fund: A considerable number of letters have been received from members of the Association respecting dental treatment services which were rendered under payment from the Army Benevolent Fund. For the most part these letters were very critical of the methods used in respect to carrying out the administration for dental services. As a result, the points of criticism were taken up with the officials who administer the Fund. We now have reply, which, with the permission of Mr. Chadderton, National Secretary of the Army Benevolent Fund, is published below. We trust that this communication will clarify this matter for our members.

"Dear Dr. Gullett:

Your letter of January 23, 1952, addressed to the Secretary of the Ontario Committee of this Fund has been referred to the attention of the Army Benevolent Fund Board.

It is noted that your Association has raised some question over the practice of officials of this Fund arranging for dental treatment at rates below those prescribed in established schedules of dental fees.

As a matter of policy this Fund does not prepay medical or dental services. Accordingly, the matter of arrangements regarding the provision of dental treatment is usually left as the responsibility of our applicants, or as the responsibility of the agency submitting the application to this Fund. Usually such agency would be a recognized public or voluntary welfare organization.

It is true, nevertheless, that there have been certain extenuating circumstances wherein officials of this Fund have entered into direct negotiation with dentists regarding service to be carried out for an ABF applicant. It is entirely possible that such negotiation has led to arrangements under which the service would be carried out at rates below the schedule approved for Department of Veterans' Affairs and other Government - sponsored organizations. Hence, it would seem that this is the basis of the objection raised in your letter to Mr. Ranney.

It would seem that the solution to this problem is a relatively simple one. As mentioned above, our officials are not required to make arrangements for the provision of medical or dental services as a normal practice. Hence, this Board shall now issue instructions that, under no circumstances, will it be permissible for the Fund to request special rates for dental service. Therefore, in future, such arrangements will be the

responsibility of either the patient or the submitting agency.

By way of general comment, I would wish to say that the manner in which you have presented this matter to this Fund was very much appreciated by this Board and I would wish to express our thanks to you for bringing these difficulties to our attention. Officials of this Fund are most anxious to maintain satisfactory relations with the various associations whose members are providing service to the veterans we are attempting to assist.

Before closing, I would wish to stress one further point: It may be that you are under the impression that Army Benevolent Fund is a "government-sponsored" organization, as mentioned in the third paragraph of your letter and in this regard, it would appear necessary to emphasize that this is not the case. This Fund is not an agency of the Crown and is operated under the control of business and professional men who give of their time and services voluntarily. It may be that you are already aware of this but, inasmuch as we are anxious to explain the independent nature of the Fund, we never let an opportunity pass to bring out this point.

We have good reason to know of the desire on the part of dentists, and of your Association, to assist in the work of this Fund and in reply to your assurance in this regard, I would wish to say that, for our part, we too are anxious to work in maximum harmony with your Association.

Yours very truly,
(Signed) H. C. Chadderton,
National Secretary,
Army Benevolent Fund."

Free Health Services in Britain Becoming Not So Free: By stages, the British Government's financial burden for the health service is being lessened through the introduction of regulations. Several methods have been introduced to reduce the soaring costs of dental services since the health service was introduced in July 1948. On three occasions, Government regulations have been introduced to reduce payments made to dentists for their services. Other regulations were effected, which it is said by the profession, made changes in the service entirely from an economic viewpoint rather than for the good of the patient concerned. Recently the public was informed that in future patients will pay one pound for dental treatment.

The effect of these changing and

sudden regulations on practice can hardly be understood by those who have not experienced it. In respect to this last regulation, much evidence is already at hand here in Canada in the greatly increased number of dental technicians who write stating that they must immigrate. One dentist's wife writes, stating that her husband has employed two technicians for twenty years and now these men are idle. By supposition it can be surmised what effect this regulation will have on preventive dental services. After receiving dental treatment services without direct payment, the public naturally reacts against making payment and the individual dentist has little or no control of the situation at all. Such can

be the position when the dentist loses control of his own practice.

Correction in Students' Register: In Table 6 of the current Students' Register it is stated that 12 dentists took post-graduate courses during 1951. This number should be 112.

New Representative For Newfoundland: At the Annual Meeting of the Newfoundland Dental Association held February 18 last, Dr. W. L. Goodwin, Harbour Grace, Newfoundland, was elected Representative to the C.D.A. Board of Governors. Dr. Goodwin succeeds Dr. E. P. Kavanagh who has served on the Board since 1950.

NEWS FROM THE PROVINCES

QUEBEC

The regular monthly meeting of **The Montreal Dental Club** was held following dinner at the Queen's Hotel, February 25: Dr. Leslie Martin presided and 63 members were present. Dr. Gordon Leahy introduced the speaker of the evening, Dr. H. E. Bensley, M.B.E., B.A., B.D., Secretary of the Medical Board of the Montreal General Hospital and Lecturer in the Department of Medicine, McGill University, who gave a scholarly and highly interesting talk on "Diet and Nutrition" in relation to Dentistry. Disclaiming any special knowledge in this field, Dr. Bensley proceeded to make several very keen observations.

Pointing out the present controversy among caries research workers between the constitutionalists who contend that dental caries is influenced and considerably so by nutrient elements absorbed into the system, and the oral environmentalists who claim the mechanism is entirely one of the local effects of food in the mouth, Dr. Bensley said of medical controversies of the past, two things often stand out:

1. There is much to be said on each side;

2. A later, entirely fresh approach often renders the controversy irrelevant.

He went on to say that on caries control, Prof. Ansel Keys is satisfied that two facts stand out: an increase in fluorine intake decreases caries as does a substantial food shortage. The latter, on the face of it, a point for the oral environmentalists, on closer examination could be a parallel to choline deficiency which causes fatty degeneration and later cirrhosis of the liver in

experimental animals. This can be stopped in two ways: by addition of choline or by a starvation diet. Hence a starvation diet does not induce symptoms of vitamin deficiency as vitamin requirements are down, and such symptoms will only become manifest if a vitamin-free diet is introduced.

As to the more or less accepted oral manifestations of vitamin deficiencies—glossitis, gingivitis, fissuring of the corners of the mouth, etc.—the value of vitamin therapy is obscured when the patient is hospitalized; as his caloric and vitamin requirements are down, he cuts down smoking, probably institutes better oral hygiene and tensions of all sorts are minimized. To credit an improved gingival condition, then, to an increased vitamin intake is not too profound.

On the relation of "diet to caries" theme, Dr. Bensley recognized three outstanding difficulties in the way of workers in this field:

1. The difficulty of diagnosis and quantitative assessment of dental caries.

2. The general complexity of dietary factors, and lack of control, e.g., a diet high in one nutrient may be correspondingly low in another, so to which can we ascribe any result observed?

3. Time relationship: if caries rate is high, is this to be correlated with present diet, that during childhood or the diet of the mother during pregnancy?

In the relation of diet to periodontal disease, the first two difficulties exist and to a lesser extent the third.

The speaker referred to "Canada's Food Rules" obtainable from local, provincial and public health bodies; and to "Dietary Standards for Canada," obtain-

able from the Department of National Health and Welfare, as guides.

Dr. Bensley was thanked by Dr. Walford who presented him with a suitable gift of appreciation from the club.

J. M. Chamard.

The February meeting of the **Montreal Endodontia Society** was held at McGill University on February 25, under the chairmanship of Dr. Walter S. Phelps.

The meeting consisted of reports on unusual and difficult cases encountered by some of the members. The cases presented were the following: "A mandibular cyst covering an area from cuspid to cuspid, all teeth being vital." "Film artifact, by lead fragment in the x-ray cone." "Differentiation between the periodontal and periapical abscess." "A case of bone discrasia involving the entire mandible." "Corrections of faulty canal fillings." "Results of excess canal filling material after five years."

These cases were presented by Drs. Johnston, Tremblay, Zimmerman and Kent.

A report on the Chicago Convention was presented by Dr. H. H. Pearson.

H. H. PEARSON.

The **Mount Royal Dental Society** held two study group meetings, one in December and one in January. At the former Dr. S. Silver gave a talk on "Hydrocolloids in Crown and Bridge-work" and followed with a practical demonstration of impression taking on models. At the latter, Dr. I. B. Hyams presented a paper on "Children's Operative Dentistry under General Anaesthesia in the Office" and pointed up his talk with statistical tables. On both occasions the meetings were well attended.

Dr. Frank B. Gardner was the guest speaker at an all-day clinic of the Mount Royal Dental Society, held February 8, 1952 in the Mount Royal Hotel. The topic presented was "Direct Acrylics." Dr. Gardner is a resident of Scranton, Penn., and has concerned himself for some years with the problems of direct acrylics in the mouth. The day began with a brief outline of the history and chemical behaviour of the acrylics and then the indications for and the advantages and disadvantages of the various materials available. Dr. Gardner stressed the use of acrylics for children together with the points to be remembered in cavity preparation for deciduous teeth.

He then went on to discuss cavity preparations in permanent teeth and paid particular attention to the anterior cavity lacking the incisal point angle.

The two methods of insertion were then gone into, the pressure and the painting. For the former, a stiff mix was advocated, and for the latter, the smallest of brushes and a minimum amount of liquid. The morning session was concluded with comments on finishing technique and the latest developments in recent research.

Dr. Gardner devoted the afternoon period to a practical demonstration of techniques and illustrated these with coloured slides. He was thanked by Dr. M. Levitt who expressed the warm appreciation of the members for the facts they had learned and for the interest-holding manner in which they had been presented.

NEWFOUNDLAND

The following officers were elected at the annual meeting of the **Newfoundland Dental Association**: President, Dr. W. L. Goodwin; 1st Vice-President, Dr. F. A. James; 2nd Vice-President, Dr. G. G. Mallam; Sec.-Treas., Dr. J. M. Darcy.—St. Johns Telegram.

ALBERTA

The **Calgary Dental Society** was favoured with a visit by our National President, Dr. Harold M. Cline of Vancouver. Travelling with Dr. Cline was Dr. Wm. Miller, Chairman of the 50th Canadian Dental Association Convention Committee.

Following an introduction by Dr. R. R. McIntyre, Dr. Cline presented a most interesting paper on the development and present-day activities of the Canadian Dental Association. Dr. Cline then had coloured slides projected of the National Headquarters Building and of various other areas of Canada where he had visited officially. Shown also were typical scenes of the location of the 50th Convention, Vancouver.

Dr. Baden Powell in thanking Dr. Cline for his many efforts on our behalf also paid tribute to the achievements of the Canadian Dental Association as a whole.

Dr. Miller was then called upon to present an official report of the pending Convention in Vancouver. Suffice it to say that from the clinics and entertainment planned, along with the holiday possibilities, many representatives from our Society will be in Vancouver June 15-18 of this year.

The election of officers for the year 1952-53 took place with Dr. L. K. Brooks, President; Dr. A. A. Downey, Vice-President; Dr. J. E. Hood, Secretary; and Dr. R. M. Duncan, Treasurer.

Dr. Wilfred M. Blair on behalf of the

Society then thanked the retiring president, Dr. R. T. Shillington, for the successful manner in which he had guided the Society in the past year.

L. K. B.

SASKATCHEWAN

Saskatchewan Dental Association:—At the Western Canada Dental Association Convention in Winnipeg, in May 1951, a meeting of all Saskatchewan dentists was held, with the object of reviving the Saskatchewan Dental Association. As a result of this meeting, active plans were made to bring back the S.D.A. to existence, and a nominating committee of Dr. Macdonell, Dr. F. R. Smith, and Dr. A. Fernet was appointed to bring in a slate of officers.

To facilitate regular meetings the first slate of officers was to be from the area of Saskatoon and vicinity. The Executive was in future years to alternate between the north and south.

At Winnipeg representatives from all parts of the province favoured the formation of the S.D.A. mainly for these reasons:

1. To aid the College of Dental Surgeons.
2. To bring outstanding clinicians to our province and especially as a help to those members not in the larger centres of the province.
3. Adequate fee schedule.
4. To aid relations between public and profession, especially in the field of public health.

The previously mentioned nominating committee brought in a slate of officers with the profession being given the opportunity to add to the list. As no new names were secured the slate was declared elected January 27, and they accepted their respective offices as follows: President, Dr. C. B. Hallett; 1st Vice-President, Dr. S. Gelmon; 2nd Vice-President, Dr. V. Little; Secretary, Dr. R. E. Dickson; Treasurer, Dr. A. Singer; Publicity, Dr. A. Fernet.

The Executive is now occupied at formulating a constitution for the Association, and in making plans for a program for 1952. Tentative plans call for a well-known oral surgeon (Dr. Joe Freeman of Winnipeg) to make the rounds of several of the smaller cities in the province to give his clinic, in May of this year. It is hoped, if this is successful, that other clinics can be held in the fall. L.D.H.

MANITOBA

The February meeting of the **Winnipeg Dental Society** was another highly successful occasion with the presence of Dr. Gordon Fitzgerald, of the University of

California presenting "Radiology Fundamentals". His "Long Cone" technique seems to provide dental radiograms that are almost unbelievable in the clearness of the area in question. One still wants to know how he controls gagging. The power of "suggestion" to control, seems to be the answer. It has been tried for nineteen centuries at least.

And then on March 4 the Society had the opportunity of being guests of the Alpha Omega Dental Society to listen to another excellent clinician in the person of Dr. H. Zander, of the University of Minnesota on the "Physiology of the Dental Pulp under all Fillings and Operative Procedure." To speak authoritatively as both Dr. Fitzgerald and Dr. Zander do, to be able to avoid being tripped up, requires endless patience as research men and marks them as true scientists who are not satisfied with guess work. There is another treat coming for March 31 on the subject "Practice Management and Patientship" by Dr. Carl Bliss of Sioux City Iowa. This is a scientific problem too.

J.F.M.

ONTARIO

Once each year, the **Academy of Dentistry** honours the men who have, over the years, guided the work of the dental societies in the city of Toronto. This year the meeting was held on February 14, at the Granite Club.

In 1891—just sixty years ago—the Toronto Dental Society was formed. It functioned continuously until 1922, when the Society's name was changed to the Academy of Dentistry, Toronto.

Of the thirty presidents in the old Toronto Dental Society, two are still living and share the tributes accorded to the past presidents of the Academy of Dentistry. Of the twenty-nine past presidents of the Academy, twenty-five are living, and reside in Toronto.

There were twenty-two of the twenty-seven living past presidents in attendance at this year's dinner when they met with the 1951-52 Council, under the presidency of Dr. Mark Boyes. The immediate Past President, Earl Bancroft, paid tribute to the men who have been responsible for the gradual building of an Academy of nearly six hundred Fellows.

The past presidents have always shown real interest in the affairs of the Academy they once guided, and their presence at the regular meetings has encouraged succeeding officers to carry on the work which has been developed in Toronto.

Following the past presidents' dinner, the regular stated meeting of the Academy was held, with Gordon Nikiforuk, D.D.S., M.Sc., as the guest speaker. His

discussion of "The Aetiological Factors and Prevention of Dental Caries" presented a broad picture of the work which is being carried on by our research men, and was an interesting and welcome message to those who are so busily engaged in repairing the ravages of caries destruction. The members are grateful to Dr. Nikiforuk for sharing his study and research of this vital problem.

CHARLES MCLEAN

The annual report of the **Division of Dental Services Department of Health, Toronto**, for 1950 has just been issued. The objectives of the services are stated as: a yearly examination of all children in primary and secondary schools and notification to parents of dental health conditions found; carrying on a vigorous campaign of dental health education; operation of a preventive orthodontic clinic and a dental treatment service for those children unable to afford private care. There are 36 operative dentistry clinics and 3 dental surgery clinics. The staff of the dental division consists of—

Director: Dr. E. A. Grant, full time; Secretary to Director; 7 full-time dental officers; 29 part-time dental officers; 1 orthodontist, full time; 1 orthodontic technician, full time; 1 x-ray technician full time; 30 part-time dental assistants; 7 full-time dental assistants.

There were 51,328 primary school children examined and 8,088 children in secondary schools. There were over 2,000 classroom and auditorium Dental Health discussions presented. The Preventive Orthodontic Service is made possible through a federal-provincial health grant and the report indicates excellent results of this service.

The annual dinner and meeting of the **Thunder Bay Dental Association** was held on January 26 at the Prince Arthur Hotel, Port Arthur. It was well attended by members, and was honoured by members of the sister profession of Medicine. The Executive for the coming year was elected: President—Dr. R. J. Stin-

son; Vice-President—Dr. L. E. Hastings; Secretary-Treasurer—Dr. A. B. Kaukinen.

Dr. W. T. McGorman was made an honorary member of the Association. Almost 89 years of age, he still carries on an active practice. The annual dinner turned practically into a testimonial dinner in honour of Dr. McGorman, as one speaker after another complimented him as a man, as a citizen, and as a professional leader. He is considered one of the oldest practising dentists in Canada.

A. B. KAUKINEN

The sudden death of **Dr. Roy Kerr** of Toronto on February 19 marked the passing of a generous, kindly colleague from the Toronto profession. He was a most unselfish person; he was reliable and a vigorous worker, not for himself but for the things and the people he wanted to help along. He was greatly interested in the University of Toronto Dental Alumni, the Toronto East Dental Association, his lodges but perhaps most of all, his own class of 2T1. Roy never sought position of honour, he just wanted to work and any task he undertook was done conscientiously and done well. Over the years he had contributed to the Red Cross blood bank some thirty donations. Roy had many friends both within and outside the profession and all of them feel a very tangible loss in the passing of a fellow citizen who had a great heart.

At a meeting of the **Sudbury District Dental Association** on February 20, Douglas M. Tanner, M.B.E., D.D.S., B.Sc. of the Faculty of Dentistry, Univ. of Toronto, spoke on "Dental Services in Hospitals."—Sudbury Star.

On March 4 Toronto's Board of Health approved the **Fluoridation of the City Water** and asked the council to provide \$80,000 in their estimates so as to make a start this year.—Toronto Evening Telegram.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

The Industrial Disputes Tribunal have made an award on the **Union's Claim for Increased Minimum Wages for Dental Technicians**. Many members of the profession will, however, find themselves forced to review their own economic position in the light of the Tribunal's award. The cuts in remuneration of 1949 and 1950 had already reduced the fee for dentures to a level where many

have found it unprofitable to provide this treatment in the National Health Service. The great decline in the demand for dentures since May, 1951 caused many employers of technicians to dismiss their staff and even to close their workshops, in face of the hard fact that their practices were not providing sufficient denture work, and at high enough fees, to justify the employment of a staff of technicians and apprentices at a guaranteed weekly wage.

It is inevitable that the new increases in the minimum wage rates will accelerate this tendency with the result that unemployment in the craft which, it is believed, is already assuming serious proportions, will increase still further.—From Editorial in *Br. D. Jour.* Feb. 5, 1952.

National Health Service:—"A drastic Conservative Government program to avert national bankruptcy was outlined to the House of Commons by Richard Austen Butler, Chancellor of the Exchequer . . . He proceeded to levy charges against the social services, which the Labour Opposition holds should be provided for fully at the taxpayers' expense . . . The present ceiling of £400,000,000 a year on the cost of the

National Health Service, he said, will be retained, but he sought to reduce the demands on it by reminding taxpayers that it was not free.

"Henceforth, he said, doctors' prescriptions will cost one shilling (about 14 cents) each and should bring in revenue of £12,000,000 a year. He proposed to charge £1 for dental service, or the total cost if less, except for false teeth, for which patients now pay half the cost. This, he estimated, would bring in £7,500,000 a year. Hearing aids, wigs and surgical appliances, now provided free, henceforth will cost the patient something. Private care in hospitals will cost more. These changes, Mr. Butler calculated, would bring the Treasury an additional £20,000,000 a year.—*New York Times*.

GENERAL NEWS

Self-Curing Resins in Dentistry still in Developmental Stage:—The Editor of the *Journal of the A.D.A.* has this to say about self-curing resins in the March issue:

"The doubts that have been raised by investigators indicate that although the self-polymerizing resins have proved practical for certain purposes in dentistry, they have not been found satisfactory for others. Obviously further laboratory research and clinical trial are necessary. The Council on Dental Research of the Association is prepared to do its part to bring about an early solution of the problems concerned in perfecting this newest of dental materials. Until these answers are obtained conservative dentists will use self-curing resins cautiously and only for purposes for which these materials have been proved satisfactory.

A Simple Comparative Test of Plastic Filling Technique:—Matthew Slate, D.D.S., of New York City reports some tests of plastic filling technique in the *New York Journal of Dentistry* as follows: "Two empty anaesthetic carpules from which the rubber plungers were removed, were used. One rubber plunger was shaved down in its circumference so that it would fit the carpule loosely and allow for leakage of plastic under pressure to an approximate extent as a matrix around the tooth, and also to prevent the trapping of air.

The manufacturer's instructions were carried out precisely. One carpule was filled one-third by the non-pressure technique. Pressure was maintained by placing the loose filling rubber plunger into the tube with a long wooden dowel

over it. Pressure was maintained for ten minutes with a large C clamp.

The dowel and rubber plunger were removed and two drops of a solution of gentian violet were dropped into each carpule, spilled out and carpules flushed in running tap water.

The specimen of non-pressure technique showed no staining at all. The pressure technique specimen stained along the sides for its full length. Several tests were made with the same result. The obvious conclusion is that the non-pressure technique affords absolute adaptation and the pressure technique does not.

Of course, tests should be made for other physical properties, hardness, expansion, contraction, porosity, etc. However, no matter how favourably other physical properties may be produced by a particular technique, the lack of proper and sufficient adaptation should condemn its use.

Rockefeller Foundation grants for the last quarter of 1951 totalled \$9,884,000, and General Education Board appropriations for the same quarter, \$11,600,000.

The Chicago Dental Society 87th Mid-Winter Meeting:—At this meeting 12,334 persons registered. Of these 6,108 were dentists. The 6,226 registered guests included 30 physicians, 26 health nurses, 901 students, 1,738 family guests, 917 assistants, 184 hygienists, 539 laboratory personnel, 1,545 exhibitors and 346 miscellaneous.

In his address to the faculty of Univ. of Illinois College of Medicine, Mr. Ewing, U.S.A. Federal Security Adminis-

trator, emphasized the difference between the proposals for **National Compulsory Health Insurance and Socialized Medicine**. "I don't know anyone who is in favour of socialized medicine—neither the President, I, nor anyone else," he declared. He defined socialized medicine as a system under which the medical profession works for the government, hospitals are owned by the government, and the entire system is paid for out of the general tax fund. "This is not the kind of medicine that would fit the American way of doing business, and it is entirely different in concept and practice from what the President has proposed," Mr. Ewing stated.

"The nation does have a serious problem involving the cost of medical care," Mr. Ewing asserted. "Three out of five American families have an annual income of less than \$3,500 and cannot pay the costs of the medical care they require. Four out of five families have less than \$5,000 income and cannot meet the costs of so-called catastrophic illness. This is no reflection on the medical profession. The problem is to bring doctors and patients together. It is the dollar bill which prevents families from getting needed care. It is also the dollar bill which prevents medical schools from producing a sufficient number of doctors

and causes doctors to settle in larger cities rather than in low income communities, and it is the dollar bill which causes people to stint on medical care they need—or go broke paying for it."

Explaining the proposed national compulsory health insurance system, Mr. Ewing said it was simply an arrangement to change the method of payment for medical and hospital services; it would not in any way affect the services themselves, he insisted. He explained that insurance costs would be paid out of a health fund to be collected by a three per cent payroll tax, one and a half per cent to be paid by employees and one and a half per cent by employers, and that doctors would receive payment for services rendered on either a fee for service, capitation, or salary basis—according to their own choice.—Modern Hospital.

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The **U.S. Office of Education**, through a grant of \$25,500 from the Association for the Aid of Crippled Children, will make a year's study of the qualifications and preparation of those needed to teach the nation's nearly 5 million school-age exceptional children, only about 15 per cent of whom are reported to be receiving special help.

IN MEMORIAM

Arnold Roy Kerr of Toronto, Ontario, aged 54, died suddenly from coronary thrombosis on February 19.

Dr. Kerr was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1921. He practised his profession on Danforth Avenue, Toronto, continuously for 31 years.

He enlisted in 1916 in the 201st Battalion and later transferred to the Canadian Army Dental Corps where he served in Canada and overseas. He was awarded the General Service Medal.

He was a past president of the Toronto East Dental Society and Secretary of the University of Toronto Dental Alumni. He was a member of the session of Donlands United Church; a member of the I.O.O.F. and of the Masonic Order.

He was associated with many groups and organizations from time to time wherever he could help without ostentation.

Dr. Kerr is survived by his widow, one brother, his father and mother.

Margaret Mary Mitchell of Toronto, Ontario, died on February 7.

Dr. Mitchell was graduated from the Faculty of Dentistry, University of Toronto in 1946. Following graduation she proceeded in her studies securing her Diploma in Periodontia in 1950. She was married in 1951.

Dr. Mitchell was a member of the Toronto Academy of Dentistry and President of the Alumnae Gamma Phi Beta Sorority.

She was a member of the Glenview Presbyterian Church.

She is survived by her husband, her parents and two sisters.

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Richard S. Hamilton of Brussels, Ontario, aged 80, died on February 17.

Dr. Hamilton was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1908 and had practised in Brussels since graduation.

He is survived by his widow, two sisters and two brothers, one of whom is Dr. Scott Hamilton of Edmonton, Alberta.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

AVRIL, 1952

NO 4

Douleurs dentaires d'origine obscure*

par DANIEL J. HOLLAND,⁽¹⁾ D.M.D., Boston, Mass.

(traduit de l'anglais par Claude Madore)

Les dentistes sont constamment en face du problème de la douleur. On leur demande de la supprimer ou de l'atténuer, et, par contre, on les accuse de la provoquer. La douleur joue un rôle important dans l'exercice de la dentisterie, parce qu'elle remplit les cabinets des dentistes, et de plus, elle incite à remettre et à fuir les traitements dentaires.

Le dentiste est toujours à même de se rendre compte de l'extrême sensibilité des tissus dentaires. Cette constatation perpétuelle a été un stimulant pour des gens comme Morton et Wells à entreprendre des recherches dans le domaine de l'anesthésie; et ces découvertes ont doté l'humanité de moyens admirables pour contrôler la souffrance.

La douleur faciale est le plus souvent d'origine dentaire et provient d'infection. Quand l'étiologie est évidente et confirmée par l'examen, le traitement est simple et radical. L'innervation de la figure est complexe et le mécanisme de la transmission d'une douleur réflexe dans une zone éloignée du foyer initial est obscur. Dans ces cas, le traitement n'est pas aussi facile.

Il y a certains syndromes de la face et de la tête qui posent des problèmes com-

pliqués de diagnostic; ils demandent de la patience, du raisonnement et des preuves. Plusieurs de ces problèmes ont une multitude de causes obscures et incon- nues. Parfois, on associe ces manifestations douloureuses à des ennuis dentaires; des dents sont extraites inutilement, parce qu'elles ne jouent aucun rôle dans l'étiologie douloureuse: on condamne à tort les dents incluses et en mauvaise position, les dents dévitalisées, les nodules pulpaire, l'hypercémentose des racines; et la douleur persiste toujours.

La plupart des patients atteints de douleur faciale, consulteront le dentiste d'abord, ou seront référés par un médecin, pour éliminer la possibilité d'étiologie dentaire.

Il appartient donc au dentiste de différencier les causes de ces malaises.

Je parlerai brièvement des relations qui doivent être considérées dans le processus du diagnostic différentiel de la douleur faciale, et qui doivent être connues du dentiste, si ce dernier veut que son traitement soit effectif et conservateur.

Pulpite

S'il s'agit de carie, il est bon de se rappeler que certains changements pulpaire

*Conférence prononcée à l'occasion d'un cours de perfectionnement en chirurgie buccale, à l'Université de Montréal.

1—Professeur dans le service de chirurgie buccale au Tuft College Dental School, Boston.

se produisent longtemps avant que la véritable infection se manifeste.

La dégénérescence hâtive des processus odontoblastiques évoque une réaction inflammatoire pulpaire appelée hyperémie chronique, sans entrée des bactéries elles-mêmes dans les tissus de la pulpe. Ici se produira un élancement intermittent et douloureux, ordinairement déclenché par des variations thermiques. La douleur ne sera pas fréquente, mais plutôt légère et vague, parce qu'il n'y a pas de localisation au nerf dentaire. La dent ne sera pas sensible à la percussion.

La radiographie ne montrera pas de changement périapical, mais simplement une lacune dans la continuité de l'émail, et une pénétration de la carie dans la dentine. Le patient est conscient du côté malade, mais incapable de localiser sa douleur au maxillaire supérieur ou inférieur. Quels que soient les changements histologiques de la chambre pulpaire, ces derniers sont réversibles. Ce genre de douleur n'est qu'un avertissement et des mesures de restauration doivent être prises afin d'éviter l'exposition de la pulpe.

Si les bactéries atteignent la pulpe, la névrose ou la gangrène sont inévitables. Une destruction complète avec raréfaction périapicale suit ordinairement, mais sans symptômes douloureux, ou même désagréables. La dégénération des tissus progresse si lentement et si graduellement qu'elle n'occasionne pas de douleur. Nous avons tous vu des bouches dont les dents étaient très mauvaises, voir même usées, où il n'y avait en somme que des racines entourées d'infection, qui nous était révélée par la radiographie, et pourtant, le patient ne ressentait aucune douleur.

Dans d'autres cas, une pulpite chronique peut se métamorphoser en pulpite aiguë suppurative accompagnée de douleur atroce. La dent concernée est excessivement sensible à la percussion et à la mastication. La douleur se répercute à toutes les parties de la figure innervée par cette même branche du nerf trijumeau. La douleur se fait plus intense à la chaleur et, souvent, apparaît en même temps une enflure de la figure.

Les radiographies peuvent nous révéler,

à cette période, une destruction périapicale évidente, et parfois même l'épaississement de la membrane périodentaire et la discontinuité de la "lamina dura."

Les dents restaurées de silicates qui, par la suite, ont eu leur pulpe infectée, sont de bons exemples de ces accidents. La perforation de la dent, éliminant la pression dans la chambre pulpaire et créant un drainage, ou bien l'extirpation de la pulpe ou encore l'extraction de la dent, apportent un prompt soulagement. Le diagnostic et le traitement de ces cas sont faciles et ne présentent pas de difficulté. La dent ne présente aucun problème. Les symptômes cliniques donnent plus de renseignements encore que la radiographie.

Quelquefois, les pulpes réagissent d'une autre façon. De petits abcès peuvent proliférer à l'intérieur de la chambre pulpaire.

La pulpe du canal radicaire peut demeurer vivante, et contribuer à la diffusion de douleurs névralgiques faciales difficiles à localiser. Ces douleurs peuvent s'irradier sur tout le côté de la figure où se trouve la dent en question. La radiographie devrait nous montrer une hyperémie périapicale que l'on doit rechercher avec soin.

Et pourtant, comme la pulpe peut être encore vivante, la radiographie peut être négative. Une telle dent ou de telles dents soulèvent un problème réel et le diagnostic est toujours difficile à poser.

Une recherche patiente et un examen très minutieux sont essentiels à la localisation de l'origine dentaire de la névralgie. Jusqu'à ce qu'il y ait oedème collatéral de la membrane périodentaire, il n'y a pas de douleur. Les manifestations douloureuses proviennent des branches terminales nerveuses du tissu environnant plutôt que des nerfs dentaires; ce phénomène explique l'absence de localisation du siège de la douleur.

L'examen aux rayons-X, d'ordinaire, ne donne pas beaucoup de renseignements dans la plupart des cas de pulpite, si ce n'est dans les infections chroniques suivies de suppuration active. En d'autres mots, quand une infection pyogénique envahit une pulpe normale, elle détermine

un malaise si rapide que des changements osseux ordinairement visibles aux rayons-X, ne sont pas encore apparus à l'apex, quand le patient se présente pour le traitement. Il faut tout de suite soulager cette douleur aiguë.

Au contraire, une vieille infection chronique latente stimule lentement une réaction de défense dans la membrane péri-dentaire, au niveau de l'apex, et engendre un épaississement péri-dentaire visible sur la pellicule.

Dans d'autres cas, la dégénération de la pulpe est si graduée que le névralgie constitue le seul symptôme, et la radiographie n'apporte rien ou presque rien dans le diagnostic. La dent elle-même parfois n'est pas douloureuse et est la cause de très vives douleurs dans la tête; ces douleurs disparaîtront tout à coup, à la suite du traitement de la dent malade. L'origine est obscure et difficile à déceler. Il est important de se rappeler qu'il y a plusieurs sortes de pulpites:—pulpite partielle ou totale, pulpite aiguë ou chronique, pulpite avec ou sans douleur, dont la radiographie est positive ou négative.

Une pulpe congestionnée peut irradier la douleur à d'autres branches du trijumeau, ou même à d'autres nerfs qui croisent celui-ci. Par exemple, il n'est pas rare de voir une pulpite d'une dent inférieure, produire un mal d'oreille connu sous l'expression "otalgia dentalis." Les patients souffrant de cette affection, consultent tout naturellement un otologiste.

La douleur est localisée dans l'oreille, mais il n'y a aucun signe organique qui explique cette douleur transmise par une pulpe infectée d'une 2e ou 3e molaire inférieure vers l'oreille par le nerf de la corde du tympan. La douleur à l'oreille peut aussi être causée par une péri-coronite de 3e molaire, ou par la douleur déclenchée par une alvéolite. (Dry Socket.)

Le nerf de la corde du tympan est un petit nerf qui vient du facial ou de la 7e paire crânienne. Il touche à la branche linguale du trijumeau, et innerve le tympan de l'oreille. L'inverse se rencontre rarement, c'est-à-dire, un patient atteint d'une infection de l'oreille moyenne, et souffrant d'une vive douleur dans une

molaire inférieure saine. C'est là un exemple de douleur réflexe.

Un ulcère ou un cancer de la langue manifeste souvent son premier symptôme par une douleur qui s'irradie à l'oreille et à la fosse temporale. Le processus par lequel une douleur se transmet d'une partie du corps à un autre et la diversité des phénomènes qui l'accompagnent toujours ne sont pas parfaitement connus.

C'est dans le mécanisme du système nerveux central qu'il faut rechercher tous les phénomènes des douleurs réflexes.

Ces phénomènes d'irradiation sont produits par des troubles qui prennent place à la périphérie, et ne sont pas semblables à ceux qui parcourent de longues distances, comme les appels téléphoniques dont le message est relayé sur différents réseaux. Il faut toujours songer à la douleur irradiée dans le diagnostic différentiel des douleurs faciales obscures.

*Nodules pulpaire*s

Jadis, la présence de nodules pulpaire ou de calcifications au sein de la pulpe était considérée comme une cause de douleur dentaire ou faciale.

De nos jours, on ne leur attache pas d'importance et on ne leur attribue aucun rôle dans le mécanisme de douleur.

OBSERVATION CLINIQUE. Une jeune femme se plaignait d'une forte douleur dans le maxillaire supérieur. Le seul symptôme dentaire visible était la résorption totale des chambres pulpaire qui s'étaient calcifiées. Un examen plus poussé révéla une sinusite latente de l'antre d'Highmore, avec présence de polypes et congestion de la membrane.

Sinusites

Ceci nous amène au rôle des maladies du sinus dans l'étiologie des douleurs faciales. Des tumeurs ou des empyèmes du sinus maxillaire ou des inflammations du cornet inférieur ou du septum nasal se traduisent par des névralgies du maxillaire supérieur ou de la seconde division. On devrait toujours y penser, s'il n'y a pas d'affection dentaire dans le maxillaire supérieur. Le caractère de la douleur, sa fréquence, sa durée et sa distribution sont des facteurs importants dans la solution des problèmes du parcours de la douleur faciale.

Quand on a des doutes sur les sinus, il faut se servir de la transillumination, faire un examen du nez et bien étudier les radiographies. Une histoire d'écoulement nasal, de lourdeur, de douleurs de pulsation au-dessus des sinus maxillaire, ethmoïdal et frontal aideront au dépistage des infections sinusales comme source de la maladie.

Trop de dents sont extraites pour éliminer une douleur dans le maxillaire supérieur, avant qu'un examen complet soit entrepris pour établir un vrai diagnostic.

J'aimerais vous rappeler que les douleurs transmises aux diverses branches du nerf trijumeau sont très fréquentes. Un examen minutieux s'impose souvent pour en découvrir la cause locale.

De façon générale, la diffusion de la douleur aux différentes branches du nerf, est d'abord restreinte aux divisions principales.

La recherche de la lésion déterminante devrait toujours commencer par un examen approfondi des régions anatomiques innervées par cette division nerveuse.

Dans certains cas sérieux, une douleur peut être irradiée par des branches venant d'autres divisions principales.

Nous n'insisterons pas sur la douleur causée par les alvéolites (Dry Socket), par les infections à fuso-spirochètes, par des lésions traumatiques, ou à d'autres causes dont les facteurs étiologiques sont évidents et qui ne présentent pas de véritables problèmes de diagnostic. Notre but est de traiter des douleurs faciales d'origine plus obscure que la douleur ordinaire intrabuccale, parce que celle-ci peut être analysée plus facilement.

Douleurs à la langue

Profitons de ce chapitre pour établir que les douleurs linguales, qui se présentent sous forme de brûlures, sont des signes avant-coureurs d'anémie sanguine, avant même que la formule sanguine subisse des modifications caractéristiques. Une forte douleur ressentie dans la langue, en présence d'ulcération, doit nous faire songer à un ulcère tuberculeux.

Ici encore, le dentiste peut contribuer

au diagnostic d'une maladie sérieuse, en étudiant, en premier lieu, ses seules manifestations buccales. Naturellement, l'analyse bactériologique des crachats, les radiographies pulmonaires et d'autres examens sont nécessaires pour confirmer le diagnostic. Les brûlures, les élancements et les irritations de la muqueuse buccale, chez les femmes, font parfois partie du cycle de la ménopause caractérisée par des changements atrophiques de la muqueuse. Dans ces cas, le symptôme douleur peut être négligeable. Quand des dérangements psychiques et qu'une phobie du cancer se mettent de la partie, les symptômes peuvent être exagérés et même déformés.

Le thérapeute doit alors faire preuve d'une grande compréhension et la psychothérapie doit se faire l'adjointe des extraits endocriniens.

Les douleurs profondes du cancer de la bouche sont le plus souvent accompagnées d'oedème et d'ulcération. En plus de l'infection, la pression exercée sur les terminaisons nerveuses par la tumeur explique la présence de la douleur. Quand le cas est inopérable, ou lorsque la radiothérapie ne peut rien faire, l'injection d'alcool ou la résection du nerf, et d'autres mesures neuro-chirurgicales sont les moyens employés pour réduire la souffrance.

OBSERVATION CLINIQUE: Mme LARKIN, 31 ans, mère de deux enfants, se plaint de douleur aiguë au cou, du côté gauche. Cette douleur atteint l'oreille et le corps de la mandibule depuis environ un an. L'ingestion de jus d'oranges cause de très vives douleurs dans la glande sous-maxillaire gauche, et, elle note qu'elle n'est plus capable d'ouvrir la bouche comme d'habitude. Le trismus s'aggrave de plus en plus, et, au cours de l'année, elle a consulté au moins 6 médecins. Les molaires inférieures, du côté gauche, qui d'après moi étaient saines, ont été extraites, sans abolir sa douleur. Dans l'histoire du cas de Mme LARKIN, on note que cette patiente souffre d'arthrite articulaire, qu'elle a subi des examens radiographiques, hématologiques et cliniques, de même qu'une biopsie.

UN AUTRE CAS: Un vendeur, âgé de 58 ans, souffre depuis un an et demi, de vives douleurs, qui élancent, et s'accroissent à l'ingestion de nourriture, surtout lorsqu'il s'agit de fruits citrins. Il se plaint en outre d'une grande difficulté à mastiquer ses aliments et d'une douleur qui s'irradie à l'oreille; il devient sourd et il a la sensation d'avoir l'oreille bouchée.

Il a consulté des neurologistes, des neuro-chirurgiens, des dentistes, des chirurgiens buccaux. Tous semblent conclure qu'il s'agit d'un cas d'arthrite temporo-mandibulaire. L'occlusion est corrigée et les symptômes demeurent les mêmes.

L'examen révèle une sensibilité extrême au condyle droit; le tragus de l'oreille est agrandi et quelque peu rougeâtre; le canal auditif externe est affaissé.

Un diagnostic provisoire d'abcès périarticulaire est posé en dépit de l'absence de température et d'augmentation des globules blancs. Une intervention dans le but d'explorer la région révèle la présence d'une tumeur, un fibro-sarcome. La glande parotide, le condyle et le tissu du joint temporo-mandibulaire furent enlevés, et la douleur finit par disparaître. Jusqu'à date, on ne rapporte aucune récurrence.

Névralgie du trijumeau

L'étude de la névralgie du trijumeau, ou tic douloureux, est très importante pour le dentiste qui doit bien la connaître. L'étiologie de cette névralgie est inconnue.

Une erreur fréquente de diagnostic veut que toutes les douleurs faciales soient dues à une névralgie du trijumeau. Alors, la douleur faciale, qu'on croit être du tic douloureux, est traitée comme telle et le traitement de la cause réelle est négligé. Voici les principaux symptômes spécifiques qui doivent être présents pour justifier ce diagnostic :

1—*La douleur doit être unilatérale*, c.à.d., qu'elle ne doit pas traverser la ligne médiane. Certains patients se plaignent de douleur aux deux côtés, mais non en même temps. On rapporte des cas de névralgie du trijumeau d'un seul côté, qui furent guéris, et qui sont réapparus du côté opposé.

2—*La douleur doit être intermittente*, c.à.d., qu'elle est aiguë, très profonde élançante, piquante, lancinante comme un choc électrique, tout en ne durant que quelques secondes. La douleur est alors à son paroxysme. Le patient ne ressent absolument aucune douleur entre les attaques; cependant, il demeure avec l'appréhension, ne sachant à quelle minute une nouvelle crise se déclenchera.

3—*Il doit y avoir une zone de déclenchement*, c.à.d., un endroit sur le long de la distribution de la 5^{ème} paire qui, lorsque stimulée, même très légèrement, déclenche une attaque. Le lavage de la figure, l'application de poudre, le rasage, le fait de se moucher, la mastication, même un clignement, peuvent provoquer une attaque.

Cette névralgie se rencontre surtout chez les gens âgés. Les nerfs maxillaire inférieur et sous-orbitaire sont les branches de la 5^e paire les plus communément affectées, quoique n'importe laquelle

autre division du trijumeau peut en être le siège. Les premiers symptômes peuvent être quelconques, mais avec la progression de la maladie, le diagnostic se fait de plus en plus facilement. La pathologie dentaire n'a rien à faire avec cette maladie et le traitement est d'ordinaire spécifique.

Le traitement. Les sédatifs et parfois de fortes doses de morphine n'apportent aucun soulagement. Le trichloréthylène en inhalation s'employait autrefois, mais à cause de ses effets de courte durée et plutôt aléatoires, on ne le considère plus comme un agent très utile. Une injection de novocaïne dans la région du nerf intéressé et la stimulation des zones de déclenchement, pour en contrôler les effets, est un bon moyen de diagnostic. Si la novocaïne abolit tous les symptômes, il est alors indiqué d'administrer une injection régionale d'alcool à 95%. La période de rémission qui suit l'injection d'alcool varie de 3 mois à 3 ans, selon l'efficacité de l'injection. L'alcool n'enraye que rarement la douleur d'une façon permanente. Les injections subséquentes n'arrêtent la douleur que pour des périodes de plus en plus courtes.

L'extirpation du nerf périphérique est ensuite la procédure indiquée. Au moyen d'une opération chirurgicale, on isole le nerf, on le coupe, puis on enrole ses deux bouts sur une pince hémostatique jusqu'à ce qu'on l'arrache de ses foraments. La régénération du nerf périphérique, et la réapparition des symptômes sont toujours possibles; c'est pourquoi les neurochirurgiens préfèrent la résection à la racine postérieure du nerf entre le ganglion de Gasser et la protubérance cérébrale. Dans ce procédé exécuté à la hauteur de la fosse temporale, le nerf ne peut se régénérer, et la perte de la sensibilité est permanente.

Il peut arriver par hasard que l'on coupe des branches motrices qui innervent les muscles de la mastication, ou des branches ophtalmiques qui pourraient détruire les sensations de la cornée de l'œil. On peut pratiquer l'opération sous anesthésie locale. Le taux de mortalité est d'environ 1%; et 3% des patients accusent une paralysie faciale.

Même après une intervention, la plupart des patients se plaignent de sensations de brûlures ennuyeuses. La parésie demeure même si la douleur aiguë a été éliminée. Il est important d'expliquer auparavant au patient les symptômes qui sont susceptibles de se produire après l'opération.

Une douleur que l'on confond souvent avec la névralgie du trijumeau, c'est le syndrome de Sluder. C'est une névrite du ganglion sphéno-palatin. Le ganglion sphéno-palatin est le plus gros des ganglions sympathiques en relation avec le trijumeau; il est placé dans la fosse ptérygo-maxillaire. La cause de cette névrite est aussi inconnue. On peut la reconnaître par sa sensation douloureuse de brûlure qui peut durer jusqu'à 1/2 heure dans le maxillaire supérieur, en arrière de l'orbite ou du palais, dans la fosse nasale. Pendant une attaque, l'oeil peut pleurer, devenir rouge et même souffrir d'une inflammation périorbitaire. Une extrême sensibilité des ailes du nez peut ressembler à une zone de déclenchement du tic douloureux. Le traitement de cette affection est moins facile que celui de la névralgie du trijumeau. Certains spécialistes du nez et de la gorge préconisent la cautérisation du ganglion au nitrate d'argent, par voie nasale. La novocaïne injectée dans le ganglion par le trou palatin postérieur apportera un soulagement temporaire. L'alcool n'est pas aussi efficace que pour le tic. Dans le syndrome de Sluder, on doit éliminer la sinusite aiguë et la névralgie du trijumeau dans le diagnostic différentiel.

Le névrite du ganglion sphéno-palatin n'est pas une maladie commune; et comme elle est difficile à reconnaître, les patients qui en sont affectés peuvent souffrir longtemps. Vu que la douleur est presque dans la région des dents, ces patients peuvent rechercher d'abord les services d'un dentiste. Si la douleur dont se plaint notre patient se localise au tiers moyen de la figure, il faudrait alors penser au syndrome de Sluder.

Le syndrome de Costen

Plusieurs névralgies et troubles d'oreille peuvent être directement associés à

des disfonctions de l'articulation temporo-mandibulaire. On croit d'une façon générale que l'absence de dents, en particulier, les molaires, surtout si elles ne sont pas remplacées, causent des dommages au mécanisme de l'articulation du condyle. Ce trouble peut se manifester par une légère modification dans la position du condyle dans la cavité glénoïde; il peut aussi produire un déplacement des muscles et des ligaments de l'articulation; parfois même, il y aura la destruction du joint proprement dit.

L'absence des dents postérieures, non seulement prive la mandibule de son appui normal, mais elle occasionne un déséquilibre de la mandibule, qui se traduit par une torsion et une déviation de la branche montante et une perte de dimension verticale. Le condyle prend une position postérieure à la normale.

Les patients qui ont perdu leurs dents postérieures d'un seul côté de la bouche éprouvent, d'une façon évidente, des douleurs caractéristiques.

Les douleurs à l'oreille sont dues à la pression sur les trompes d'Eustache.

Les douleurs sont plus accusées chez les patients qui ont perdu leurs dents d'un seul côté. Quels sont les symptômes des disfonctions de l'articulation temporo-mandibulaire?

1—Craquement et crépitement durant la fonction.

2—Sensibilité en avant de l'oreille.

3—Sensibilité intra-auriculaire.

4—Abasourdissement aux oreilles. La perte de l'ouïe peut se produire petit à petit. Obstruction de la trompe d'Eustache.

5—Douleurs irradiées en arrière de l'oreille, dans le cou, et, même dans l'épaule.

6—Glossite ou brûlement de la langue et du pharynx (névralgie glossopharyngienne.)

7—Zone de déclenchement dans la bouche au niveau du sillon buccal postérieur le long du bord inférieur du zygoma, à l'endroit où le muscle temporal s'attache à l'apophyse coronoïde.

8—Perte des dents postérieures et

perte de la dimension verticale postérieure.

9—Quelquefois, histoire de choc traumatique.

Dans la phase aiguë, les patients éprouvent une douleur en mastiquant, en baillant, et quelquefois, en parlant.

Traitement: La première chose à faire serait de rétablir l'articulation en remplaçant les dents postérieures absentes et en équilibrant l'occlusion.

Un simple appareil en acrylique, qui ouvrirait l'occlusion d'une façon exagérée, serait très utile pour montrer comment on peut arriver à un soulagement avant d'entreprendre un travail définitif de restauration. Il est bon d'ajouter les soins suivants: compresses humides chaudes; traitements infra-rouges, ou encore mieux, diathermie. Garder le maxillaire au repos autant que possible. Diète solide et molle, bandage au menton, durant la nuit. Dans les cas aigus, le meilleur traitement consisterait à ligaturer les dents ensemble.

Quand la capsule de l'articulation a été étendue d'une façon permanente, et quand les ligaments se sont relâchés, le condyle est devenu incontrôlable. Il peut exercer une pression sur le nerf auriculo-temporal et causer une douleur à la corde du tympan. Dans ces cas, une injection d'une solution contenant du psylliate de sodium ou de l'intracaine huileuse donne de bons résultats pour la formation d'un tissu fibreux. On conseille de restreindre les mouvements du condyle.

Les résultats sont lents, mais ils existent quand même, si le dérangement mécanique est corrigé. Le rétablissement de l'articulation dans la région des

molaires pour alléger la pression du condyle, et l'établissement d'une articulation normale de ce condyle dans la fosse: tel est le but du traitement.

Certaines douleurs faciales revenant régulièrement avec les mouvements du maxillaire inférieur, permettent le diagnostic provisoire de la névralgie de l'articulation temporo-mandibulaire, à moins que d'autres symptômes ne viennent contredire cette assertion. Plusieurs de ces troubles douloureux des plus vagues peuvent être attribués à des dérangements psychologiques, comme la peur, une dépression nerveuse ou à d'autres manifestations psychiques. Le diagnostic est rendu difficile parfois, parce que le patient ne peut situer sa douleur, parce que ses symptômes sont vagues et contradictoires, et parce qu'il se mêle à son état une partie d'hystérie ou de névrose.

Nous devons être très prudents, cependant, avant de le classer comme psychique.

Dans certains désordres du métabolisme, de la circulation ou de la nutrition, la douleur faciale peut n'être qu'un aspect des symptômes.

En conclusion, permettez-moi de déclarer que notre rôle, à nous, dentistes, est basé sur le diagnostic aussi bien que sur l'application des techniques; les horizons de la dentisterie s'agrandissent et il nous faut accepter nos nouvelles responsabilités.

Les recherches sur l'étiologie des symptômes de la douleur demandent une profonde connaissance de plusieurs processus de maladie qui doivent être compris de façon à bien exercer ces responsabilités.

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ETRE DENTISTE*

par ERNEST CHARRON, doyen de la Faculté de Chirurgie Dentaire, Université de Montréal

Le dentiste exerce une spécialité médicale reconnue qui requiert, comme la profession médicale elle-même, une formation théorique et pratique.

Prestige de la profession

La profession de dentiste a été longtemps déconsidérée, tout comme le fut d'ailleurs celle du chirurgien.

L'art dentaire et la chirurgie, au fur et à mesure que se développaient les études et les recherches médicales, ont été promus au rang de branches indispensables de la médecine générale. Ils ont, à leur tour, bénéficié des découvertes biologiques et des perfectionnements techniques.

Il y a plus de quatre-vingts ans que l'importance de la spécialité dentaire a été reconnue par une loi que créa d'abord l'Association des Chirurgiens-Dentistes de la province de Québec, devenue, depuis 1904, le Collège des Chirurgiens-Dentistes. Cet organisme autonome contrôle l'exercice de la profession dentaire et assure la stricte observance de l'étiquette professionnelle, dans l'intérêt à la fois du public et du dentiste lui-même.

Pour le médecin comme pour le spécialiste dentaire, l'expérience a montré qu'une solide formation de base est indispensable; elle comporte une culture générale associée à des études suffisantes de biologie, de chimie (générale, inorganique et organique) et de physique. Cette formation acquise, le candidat, sans distinction de sexe, peut aussi bien s'orienter vers l'étude de la médecine proprement dite que vers celle de la chirurgie dentaire.

Comme pour la médecine, le cours vise à former des omni-praticiens compétents au courant des techniques les plus récentes. Comme la profession médicale, la profession dentaire a ses spécialistes. Ceux-ci ne peuvent prétendre à ce titre

que si, après l'obtention de leur grade de docteur en chirurgie dentaire, ils ont reçu un enseignement post-gradué aussi rigoureux et prolongé que les spécialistes de la médecine.

Le cycle normal des études de la Faculté est de 4 ans. Dans de nombreux cas, ce cycle doit être précédé d'une année dite pré-médicale pour ceux qui, de quelque façon, soit en matière de culture générale, soit en biologie, chimie ou physique, ont reçu une formation qui, dans l'opinion de la Faculté, s'avère insuffisante. Le jury qui décide de l'admission aux études dentaires est composé de dentistes, de médecins et de professeurs de sciences. On comprendra qu'ils tiennent à sauvegarder le prestige et la dignité de la profession en assurant le recrutement des meilleurs candidats.

Par ailleurs, le grade de docteur en chirurgie dentaire et le droit d'exercer la profession (c'est-à-dire la licence) ne sont accordés par la Faculté et le Collège des Chirurgiens-Dentistes de la province de Québec, respectivement, qu'aux candidats dont le sérieux et la compétence ont été soigneusement éprouvés.

On ne saurait donc plus aujourd'hui qualifier le dentiste d'"arracheur de dents," pas plus qu'on ne qualifie le chirurgien de "barbier" ou de "saigneur."

Les exigences des règlements universitaires et professionnels ont, en définitive, pour objet de mettre le public à l'abri de l'incompétence et du charlatanisme. Enfin, la science dentaire profite de l'expérience de chacun des chirurgiens-dentistes conscient de son rôle de praticien et de son devoir de citoyen. ETRE DENTISTE, c'est servir la médecine et la société.

Etudes pré-dentaires

Les principales conditions d'admissibilité à l'étude comprennent:

*Circulaire préparé à l'intention des candidats aux études en Chirurgie dentaire.

- 1° une connaissance suffisante de la langue française;
- 2° le grade de bachelier "ès-arts" de l'Université de Montréal; ou tout autre grade équivalent au baccalauréat "ès-arts" conféré par une université reconnue; ou le brevet du Collège des Chirurgiens-Dentistes de la province de Québec;
- 3° un certificat d'études des sciences dites pré médicales (physique, chimie, biologie) correspondant au programme du baccalauréat, section B, de l'Université de Montréal, précisé par le programme de l'examen d'entrée de la Faculté de chirurgie dentaire.

Admission

Les conditions ci-dessus énoncées représentent un minimum qui ne lie pas la Faculté de chirurgie dentaire. Celle-ci, en effet, se réserve absolument le droit de choisir, parmi les candidats qui se présentent à l'admission, ceux qu'elle considère les meilleurs dans les conditions qu'elle juge opportunes.

Cycle d'études

Les cours de chirurgie dentaire durent quatre années et comprennent, par ordre alphabétique, les matières suivantes:

- a) l'anatomie, qui étudie la structure du corps humain;
- b) la biochimie, qui étudie les réactions s'effectuant dans les tissus organiques;
- c) la bactériologie, qui s'occupe des bactéries;
- d) l'histologie, qui traite de la structure des tissus organiques;
- e) la pathologie, qui étudie les causes et les symptômes des maladies;
- f) la pharmacologie, qui est la science des médicaments;
- g) la physiologie, qui traite des fonctions du corps humain.

Durant toute la durée du cours, l'enseignement de ces diverses matières est coordonné avec des travaux pratiques. Ces derniers prennent une importance particulière dans les troisième et quatrième années, durant lesquelles la Faculté met tout

en oeuvre pour placer les étudiants dans des conditions voisines de celles qu'ils rencontreront ultérieurement dans l'exercice de leur profession.

Il convient de faire une mention toute particulière de l'enseignement de l'hygiène. L'importance grandissante de l'hygiène publique a conduit la Faculté à insister de plus en plus sur la prévention des maladies et les mesures d'hygiène qui s'imposent.

Droit d'exercer la profession

Le droit d'exercer la profession, ou licence, s'obtient en deux étapes. La première consiste dans l'enregistrement au Collège des Chirurgiens-Dentistes de la province de Québec comme étudiant, dès le début de ses études dentaires; la deuxième est l'obtention de la licence et l'enregistrement au Collège des Chirurgiens-Dentaires comme praticien. En effet, la possession du grade de docteur en chirurgie dentaire ne confère pas automatiquement, ou ipso facto, le droit d'exercer la profession. Ce droit est régi par une loi de la province de Québec, qui s'intitule: "Loi concernant le Collège des Chirurgiens-Dentistes de la province de Québec, chapitre 268 et amendements." Cette loi précise les conditions que doit remplir tout candidat aux études dentaires pour être légalement reconnu comme étudiant d'abord et, subséquemment, comme praticien. Afin de ne pas s'exposer à un refus ou à des ennuis, et vu que les conditions d'admission à l'étude et d'obtention de la licence peuvent varier selon les provinces, tout jeune homme qui se propose d'étudier la chirurgie dentaire devrait, dès le début de son cours, s'enquérir de ces conditions en s'adressant au registraire du Collège des Chirurgiens-Dentistes de sa province.

Champ d'action

La chirurgie dentaire est, sans contredit, la moins encombrée de toutes les professions à l'heure actuelle. On ne compte, au Canada, que 4912 dentistes, soit un dentiste pour 2819 habitants; dans la province de Québec, le nombre des dentistes est de 1147, soit un pour 3466 habitants. Près de 550 d'entre eux exercent

leur profession dans l'île de Montréal. On voit par là combien les dentistes sont clairsemés dans l'ensemble de la province. Ainsi, dans 29 comtés dont la population dépasse 20,000 âmes, on trouve moins de 10 dentistes; dans 44 comtés, moins de 5. Il y a même 7 comtés sans un seul dentiste.

Une récente statistique, constate que dans les deux Facultés de Chirurgie dentaire de la province de Québec, le nombre des étudiants, relativement au chiffre de la population, est dans la proportion de 1 à 22,000 environ. Cette situation est d'autant plus grave que de nombreuses personnes sont privées de soins immédiats et appropriés, à moins d'encourir des frais considérables de déplacement et d'hospitalisation, une perte de temps importante et un manque à gagner appréciable. En outre, toute oeuvre d'éducation et de prévention est paralysée, sinon rendue impossible. En effet, de nos jours, l'éducation dentaire doit commencer dès le bas âge, et

même précéder la naissance, puisque les futures mères sont alertées dans les cliniques prénatales et informées des soins dentaires que requiert l'enfant qu'elles attendent. La prévention à laquelle on attache, avec raison, de plus en plus d'importance, est d'ailleurs au premier plan du programme de la Faculté et de tous les services d'assistance médicale. Jamais un besoin n'a été aussi général ni aussi urgent, et jamais il n'y a eu une telle pénurie de praticiens. On conçoit quel vaste champ d'action s'offre à ceux qui se destinent à la profession de chirurgien-dentiste et quels services ils sont appelés à rendre.

Celui qui a la vocation de chirurgien-dentiste trouvera l'occasion de satisfaire son inclination et ne tardera pas à découvrir que ses goûts scientifiques ne sont pas incompatibles avec son intérêt matériel.

2900 Boul. Mont-Royal
Montréal.



Les Maladies dentaires chez les écoliers de Londres

May et Helen Mellanby, assistées de Joan Joyner et Marion Kelley, présentent un long rapport dans le British Medical Journal du 5 janvier 1952 sur l'état des dents des écoliers londoniens.

Une louable bonne volonté leur a fait examiner avec soin plus de mille enfants en 1947, puis récemment en 1950. Les résultats de leur enquête se résument dans les conclusions qui suivent:

En moyenne, les dents des écoliers de 14 ans ne sont pas mauvaises, meilleures qu'on ne l'eût prévu après le premier examen de 1947. Il semble qu'on constate un léger recul du nombre des caries des molaires de 6 ans, compensé par une augmentation des caries des autres dents, spécialement des incisives supérieures. Plus encore qu'en 1947, l'examen de 1950 a montré par contre une augmentation nette des cas de gingivite et des dépôts excessifs de tartre.

Les enfants des écoles, diverses par leur programme, qui ont été examinés, montrent un pourcentage d'exempts de carie de 16.1% en 1950 (11.5% en 1947). La différence suivant le genre des écoles n'est pas appréciable. On remarque que 5% de moins de dents ont été l'objet de traitements ou d'extractions en 1950 qu'en 1947. Par contre la gingivite est décelable dans 85.1% en 1950 (73.4% en 1947).

Ce travail de statistique, fort ingrat, est une source de renseignements utiles, qui démontre un état plus ou moins stationnaire de la carie, pour autant qu'on puisse en conclure avec le nombre restreint des éléments qui ont été examinés.

Médecine et Hygiène, le 15 février 1952.

NOUVELLES DE L'ASSOCIATION

Inscription des étudiants dans les facultés dentaires

Les tableaux apparaissant ci-après montrent les inscriptions des étudiants en chirurgie dentaire dans les différentes facultés dentaires du pays. Ces statistiques indiquent qu'il y a 128 étudiants de moins qu'en 1950-1951. En outre, il y a 42 étudiants canadiens aux études dans les écoles dentaires américaines, cette année; la plupart de ces jeunes gens reviendront s'établir au pays; avec ce nombre, il y a actuellement un total de 797 étudiants inscrits en chirurgie dentaire.

Un autre tableau a été ajouté, cette année (tableau 7); ce tableau indique le pourcentage des étudiants dans chaque école dentaire en rapport avec la population de la province, où l'étudiant résidait au moment de son inscription. Cette compilation permet des comparaisons d'une province à une autre. Par exemple,

il est intéressant de noter que la Colombie Britannique et la Saskatchewan ont une proportion plus considérable de jeunes gens aux études dentaires que l'Alberta; cependant l'Alberta est dotée d'une école dentaire, tandis que ces autres provinces n'en ont pas.

Les moyennes proportionnelles ont plus de valeur pour faire des comparaisons, parce que leurs rapports avec les chiffres de la population forment un tableau plus exact de la situation. Il faut prendre garde de ne pas attacher trop d'importance aux calculs contenus dans le tableau No 7: ils ne représentent que les données pour une seule année. Le nombre des étudiants susceptible de faire osciller d'un façon appréciable la proportion de quelques provinces est négligeable. Ce tableau pourra servir de base, pour faire des comparaisons dans l'avenir, s'il est possible de le compiler tous les ans.

TABLEAU NO 1

Inscription totale des étudiants réguliers dans les Facultés dentaires canadiennes (au 2 janvier 1952)

Université	1ière	2ième	3ième	4ième	Hommes	Femmes	Totaux
Dalhousie..	12	12	13	12	47	2	49
McGill....	37	38	34	36	145	0	145
Montréal...	16	23	58	48	140	0	140
Toronto....	79	65	71	85	295	5	300
Alberta.....	29	30	34	28	118	3	121
Totaux..	173	168	205	209	745	10	755

TABLEAU NO 2

Nombre maximum d'étudiants réguliers acceptés pour une classe dans les Facultés

Dalhousie.....	12
McGill.....	35
Montréal.....	60
Toronto.....	75
Alberta.....	30
Totaux.....	212

TABLEAU NO 3

Vue d'ensemble des inscriptions d'étudiants réguliers dans les Facultés dentaires du Canada de 1940 à 1951, inclusivement

Faculté	1940-1941	1941-1942	1942-1943	1943-1944	1944-1945	1945-1946	1946-1947	1947-1948	1948-1949	1949-1950	1950-1951	1951-1952
Dalhousie.....	31	25	25	22	28	27	38	37	41	48	48	49
McGill.....	58	61	67	67	51	73	111	127	146	147	145	145
Montréal.....	104	118	139	154	162	184	188	208	224	225	196	140
Toronto.....	210	232	270	255	264	180	340	435	478	478	380	300
Alberta.....	51	49	53	24	34	54	108	115	123	136	114	121
Totaux.....	454	485	554	522	539	518	785	922	1012	1034	883	755

TABLEAU NO 4

Total des diplômés de 1940 à 1951 inclusivement

Faculté	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Dalhousie.....	12	7	8	11	6	8	0	10	9	6	11	12
McGill.....	13	18	9	26	12	13	5	18	15	34	36	37
Montréal.....	23	14	31	18	37	30	41	36	38	45	42	69
Toronto.....	56	45	40	103	61	58	56	75	24	75	168	152
Alberta.....	13	13	32	8	24	7	0	10	13	20	49	25
Totaux.....	117	97	120	166	140	116	102	149	99	180	306	295

Pour l'année 1951

Hommes

Femmes

Dalhousie.....	12	0
McGill.....	36	1
Montréal.....	69	0
Toronto.....	152	0
Alberta.....	24	1
	293	2

TABLEAU NO 5

Provenance des étudiants réguliers aux études dans les Facultés dentaires canadiennes, par provinces ou par pays étrangers, au 2 janvier 1952.

Faculté	Terre-Neuve	I. du P.-E.	N.-Ecosse	N.-Brunswick	Québec	Ontario	Manitoba	Saskatchewan	Alberta	Colombie Britannique	Etats-Unis	Indes Occidentales	Bermudes	N.-Zélande	Europe	Total
Dalhousie.....	5	5	28	10	0	0	0	0	0	0	1	0	0	0	0	49
McGill.....	4	2	2	5	64	12	4	15	2	11	13	9	1	0	1	145
Montréal.....	0	0	1	9	116	1	1	0	0	9	0	0	0	0	2	140
Toronto.....	0	2	1	1	0	263	10	11	0	10	0	0	0	1	1	300
Alberta.....	0	0	0	0	0	0	4	37	58	18	0	0	0	0	4	121
Totaux.....	9	9	32	25	180	276	19	64	60	39	23	9	1	1	8	755

TABLEAU NO 6

Etudiants supplémentaires

	Dalhousie	McGill	Montréal	Toronto	Alberta	Totaux
†Diplômés Durant 1951.....	0	0	8	22	3	33
†Post-scolaires Durant 1951.....	0	0	112	131	0	143
Hygiénistes dentaires 1951-52....	0	0	0	23	0	23
Hygiénistes dentaires étudiantes 1951-52.....	0	0	0	6	0	6
Se propose-t-on d'organiser un cours pour les Hygiénistes Dentaires?.....	à l'étude	Oui	Oui, aussitôt que possible	Cours, qui fonctionne	Non	

†Le mot "Diplômé" veut dire qui suit un cours qui conduit à un diplôme.

†Le mot "Post-scolaire" veut dire qui suit un cours, qui n'octroie pas de diplôme.

TABLEAU NO 7

Statistiques au sujet du pourcentage des étudiants canadiens inscrits dans les facultés dentaires en rapport avec la population de leur province d'origine

Etudiants venant de	%† des étudiants	Pourcentage des étudiants par rapport avec la population‡
Terre-Neuve.....	1.13	1/39,752
I. du P.-E.....	1.13	1/10,865
Nouvelle-Ecosse.....	4.02	1/19,946
Nouveau-Brunswick.....	3.14	1/20,487
Québec.....	22.59	1/22,279
Ontario.....	34.63	1/16,530
Manitoba.....	2.38	1/40,622
Saskatchewan.....	8.03	1/12,956
Alberta.....	7.53	1/15,609
Colombie-Britannique†.....	10.16	1/14,235

†Pour rendre les proportions de ce tableau plus complètes, on a inclus les étudiants canadiens inscrits dans les facultés dentaires étatsuniennes. Tous ces étudiants font partie d'écoles américaines aux frontières de la Colombie-Britannique; par conséquent, ils ont été classés comme faisant partie de cette province.

‡Les chiffres utilisés pour les populations sont ceux fournis par le Bureau des Statistiques du Canada pour l'année 1951.

Réunion annuelle à Vancouver

Bureau des Gouverneurs, du 11 au 14 juin.

Congrès, du 15 au 18 juin.

Tous les membres de l'Association ont reçu un pamphlet attrayant à ce sujet. Ce feuillet fournissait des détails généraux sur le Congrès et sur son programme provisoire. Ceux qui se proposent d'y assister doivent se décider maintenant et le faire savoir aux organisateurs en remplissant la formule à cet effet. On sollicite leur coopération.

Ceux qui demeurent à l'est du Manitoba sont priés de remplir le questionnaire des

réservations de chemin de fer et le retourner aux quartiers-généraux de l'A.D.C., qui veillent aux facilités de transport par train, de tous.

Résolutions officielles pour la réunion plénière annuelle

Les groupements dentaires officiels qui désirent présenter des résolutions à la réunion plénière annuelle de l'Association Dentaire Canadienne doivent faire parvenir ces résolutions aux quartiers-généraux de l'A.D.C. avant le 12 mai 1952. Ces résolutions doivent établir clairement leur provenance et leur approbation par l'organisme qui les formule.



Congrès de la Société Dentaire de Montréal

les 15-16-17 mai 1952

PROGRAMME

jeudi, le 15 mai

A.M. 8.30 hrs	.....	Inscription.
10.15 "	.....	Ouverture officielle
10.30-12.00 "	.....	"Séminaire sur l'incrustation en or."
	.....	Drs J. P. Lantier, G. Lord, P. Dionne.
	.....	Animateur: J. Demers.
P.M. 12.30 "	.....	Déjeuner-causerie.
2.30- 3.30 "	.....	Session générale.
	.....	Dr A. Genest, M.D., D.D.S.
2.30- 3.45 "	.....	Clinique continue (1ière séance).
3.45- 5.00 "	.....	Cliniques répétées.
6.30 "	.....	Dîner annuel.

vendredi, le 16 mai

A.M. 9.00 "	.....	Inscription.
9.30-10.45 "	.....	Cliniques répétées.
10.45-12.00 "	.....	Clinique continue (2ième séance).
11.00-12.00 "	.....	Session générale.
	.....	Dr E. Vinet.
P.M. 12.30 "	.....	Déjeuner des Sociétés Dentaires.
2.30- 3.30 "	.....	Session générale.
	.....	"Situation dentaire et relations professionnelles à travers le monde."
	.....	Dr J. de Wever, Belgique.
3.45- 5.00 "	.....	Clinique continue (3ième séance).
	.....	Cliniques répétées.
6.30 "	.....	Coquetel-buffet dansant.

samedi, le 17 mai

A.M. 9.00 "	.....	Cliniques de table.
11.00 "	.....	Forum.
12.30 "	.....	Clôture du congrès.
Clinique continue	.....	"Prothèse complète" avec démonstrations.
	.....	Dr V. Dubé, Montréal.
Cliniques répétées	.....	1) "Amalgame."
	.....	Dr C. W. Johnson, Toronto.
	.....	2) "Anesthésie régionale et locale," avec démonstrations et modèles.
	.....	Dr A. Raymond, Montréal.
	.....	3) "Restauration des dents traitées par l'endodontie."
	.....	Dr M. Robichaud, Montréal.

CLINQUES DE TABLE

Dr Josse de Wever	.....	Prise d'occlusion centrique sans boudin de cire. (Appareil de Landé.)
Dr R. Gendron	.....	Périodontie.
Dr E. A. Dorion	.....	Interprétation radiologique.
Dr G. de Montigny	.....	Exposition de volumes.
Dr C. Paténaude	.....	Réfection ("jumping") d'une pièce de prothèse complète, à l'aide de l'appareil Hanau-Hooper.
Dr C. Madore	.....	Points de sutures.
Dr G. Baril	.....	Méthode indirecte pour incrustations (galvano-plastie).
Dr R. H. Brouillet	.....	Matériaux dentaires.
Dr J. Olivier	.....	Incrustations.
Dr V. Tremblay	.....	Endodontie.
Dr G. Benoit	.....	Pédonodontie.

PROGRAMME DES DAMES

Un programme de distractions est organisé à l'intention des dames accompagnant leur mari au congrès, les jeudi et vendredi.

Ce programme se terminera le vendredi soir par le coquetel-buffet dansant.

RENSEIGNEMENTS: Dr Louis Lépine, 1538 ouest, rue Sherbrooke, Montréal.



VANCOUVER, BRITISH COLUMBIA

GOLDEN JUBILEE MEETING

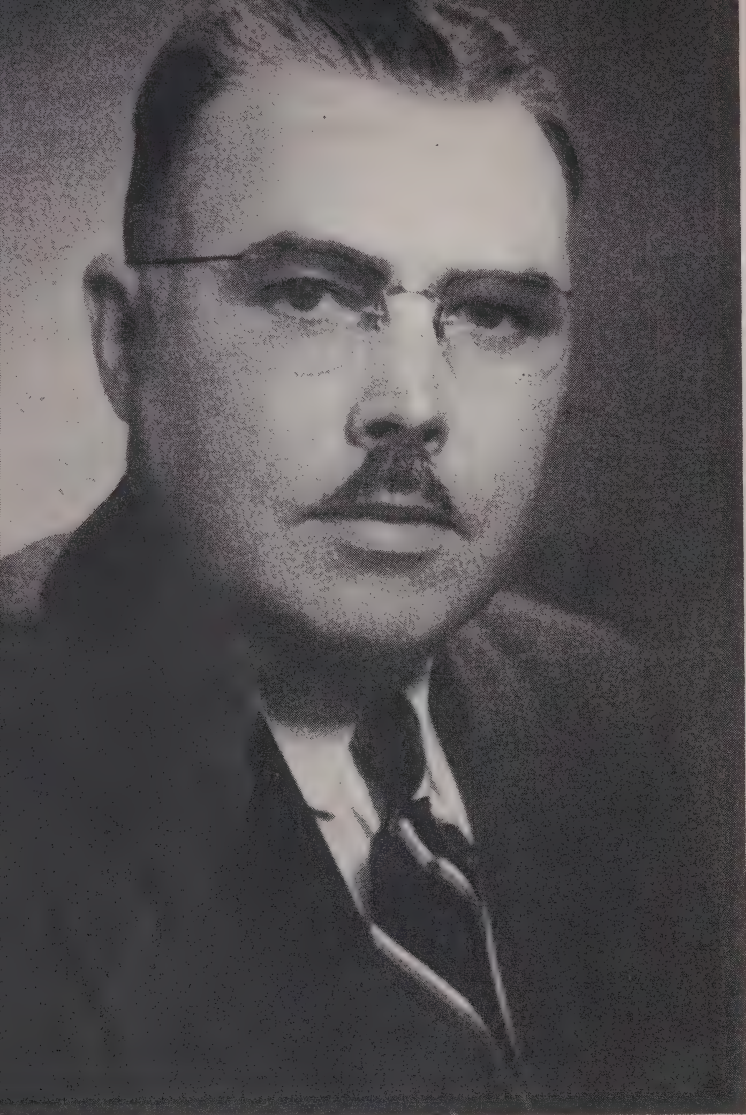
Canadian Dental Association

in co-operation with

British Columbia Dental Association

JUNE 15-18

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-



J. R. INGLEDEW, D.D.S.
Vancouver, British Columbia
President of the B. C. Dental Association



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, MAY, 1952

No. 5

Children are Practice Insurance*

by PAUL KENNETH LOSCH, Boston, Massachusetts

THIS title implies a most important consideration in our mission to improve and increase the availability of dental service to children. The implication is that no matter how altruistic our motive, ultimately economic profit must be realized.

Though deplorable, it is a fact, that not so many years ago dental service to children was looked upon by the average dentist as an abominable and unprofitable nuisance only necessary to placate anxious parents who themselves had profitable prostheses to place. One couldn't "hijack" father for an expensive denture if he didn't relieve the toothache for Johnny which was keeping father awake.

Now in order to dispose of this subject of profit early and briefly in this discussion, let me say this. I am for fair profit in serving children. I do not believe that good work will be done without profit. It is the nature of our whole way of today to do those things best which offer us some return. I would not deny that much of this return can be realized in the personal satisfaction of serving children—but by necessity we practise for profit in money.

The practitioner who prostitutes his hire by indulging in reduced rates for children has damaged the cause of dentistry for children immeasurably. The public must be made to understand that service for children is

valuable and that fair fees are justified. Mind you, I said "fair fees"—for the practitioner who exaggerates his profit beyond his worth, is the most evil menace to our profession at the present time. There are far too many of these money changers in our temple today.

The title of this paper is in no way ambiguous. It is a simple fact—a fact that has been known for some time. When patient sources were at a low level because of social economics during the thirties, dentistry for children enjoyed its greatest boom. The profession recognized that children educated to regular dental care were the best guarantee of future adult practice. Moreover, they were "birds in the hand." I am certain that much of the patient bounty enjoyed by the average practitioner today, is the result of the profession's encouraging public health teaching in dentistry for children yesterday. I am not so sure, however, that, should economic distress plague us in the next decade, we would continue to enjoy this numerical bounty of patients, because of present-day public relations.

Not so long ago I was much concerned by the attitude of a practitioner planning a program for his local dental society. He gave serious voice to this lament. "Why devote our public radio time to paedodontics — we already have more kids than we can

*Presented before the Academy of Dentistry, Toronto, January 16, 1952.

handle." It is quite apparent that he looked upon radio time, not as a public service but as an opportunity for publicity concerning his particular "racket". Certainly he had no appreciation of "practice insurance."

EFFECTIVENESS OF CHILDREN'S DENTAL SERVICE

There is another, more subtle evil in our public relations which also troubles me. Even though the costs of service might be reduced in ratio to the purchasing power of the dollar, it is possible and probable that when purchasers become more discerning because of economic distress, that they will look askance at our promises on the effectiveness of dental service to children.

Let us examine these promises for a moment. We promise in our public health teaching that if we expose children to routine dental care they will have fine dentitions as adults. I sincerely believe that we can keep that promise. The question is — do we? Sometimes when I look at the profession as a whole, I doubt it.

We promise to keep children's mouths free from infection and pain. I seriously doubt that we are doing as good a job of that as we could.

We promise that, given the opportunity to see children early and regularly, we will guide growth and development of the dentitions so that they will be aesthetically symmetrical and efficiently functional. This too, we can do, but may the good Lord forgive us for the way we abuse that promise.

Now mind you, I am not saying that the services we can offer are ineffective or that all dentists indulge in a nefarious practice, only influenced by profit—this is far from true—what I am trying to say is that the profession as a whole is not using the good tools we have as effectively as we could.

Well—what would I have done about this? Obviously, to put first things first, one answer is that we keep on sharpening the good tools we have on the fine stone of investigative re-

search. Though there is no such thing as too much research, I believe we can point with pride to the amount and quality of dental research being done today. It is true that we have much to do along these lines and that some work being done shows little promise, but that is always the way of research. However, for the purpose of our discussion this evening, I do not want to elaborate on the plodding brilliance of current or future investigations, but rather on the full use of knowledge already acquired. For, as in the parable of the talents, we can only realize full benefits by using wisely the "talents" we have in hand.

PERSONNEL

Before I embark on a more precise discussion of how I would validate our promises to the public by more attentive use of present-day knowledge, I would like to speak briefly about personnel in our professional responsibility in offering dental service to children.

We all know the magnitude of need. If all the forces of organized dentistry were focussed on services to children, they would still be inadequate. This fact need not daunt us, but serve to remind us that we have a moral obligation to do the best we can.

Now one fact concerning personnel then becomes increasingly clear. *This is a job for the general practitioner.* It is fine if some of us have a particular talent and liking for serving children to limit our practice to them. I would have hundreds more than now do, so limit their practice. It is important that we have the so-called specialist who by longer and more elaborate training can attend the complicated and extremely difficult cases. It is possible that someday we may learn to intelligently apply auxiliary assistants to this task. However, all of these avenues are mere tow paths when compared to the broad road of general practice.

I would pause here to pay tribute to the most noble and most needed of

"specialists" in medical arts—the general practitioner. He should be recognized, encouraged and applauded more by the public than he is. But, by the same token, I would remind him that it is to him that the public turns for evidence of responsible trust.

Now I dislike assuming the role of prophet, but in my mind there is no doubt that the dentistry of the near future will be based on paediatrics. The more we learn about the nature of disease, the more we understand the secrets of growth and development, the greater will become our practice of prevention. Without dispute, then, it stands that we must direct our energies to the early years of life. If prevention is possible, then the maintenance of health in middle life and the problems of geriatrics diminish in magnitude. Therefore, the bulk of general practice in the future will lie in the disciplines of paediatrics.

If you doubt this prophecy, look back twenty-five years and view what has happened to the paediatric practice of medicine. Recall that twenty years ago there were no formal courses in paedodontics in our dental schools. Even more startling is the fact that you could count the teachers in all our schools who had even a part-time interest in paediatric dentistry. There were no full time teachers then. View today the interest in this field and then remember the tempo of our accelerated attention and you can well believe that it's later than you think if you are inclined to neglect this most important phase of your practice.

It is you, then, the general practitioners, the members of this Academy, who must validate the public trust. If you would justify this trust it is our obligation to serve children to the best of our ability. It is you who must keep our promise of better dental health.

PROBLEMS OF PAEDIATRIC DENTISTRY

Though the techniques are multiple, the problems in paediatric dentistry are few and, when compared to the

whole field of medical science, they are relatively simple.

For the purposes of this discussion, let me list in four categories, the principal problems of paediatric dentistry. Now, just as I said, the techniques are multiple, so are the associated problems in this field, but, if we devote ourselves to these four, then all the others rapidly become less important.

These categories are:

1. Dental decay.
2. Growth guidance.
3. Child management.
4. Education of child patients and their parents.

If brief elaboration of these points seems commonplace and elementary to you I hope you will be tolerant and hear me out. Perhaps the general practitioners of Ontario do not need to be reminded of the importance of these things. If so, please accept my apology for what is to follow. I know too well, however, that anywhere in the States, these fundamentals need repeated exploration to keep our practice standards to the highest level.

DENTAL DECAY

Let us begin by discussing the first and most important of these categories—dental decay. What follows is not intended as an academic review of the disease.

I would like to give you a definition and list some items which characterize the syndrome. I will not explore all the ramifications of these high lights but use them as pointers towards the good tools of present-day therapy. I am always bothered that many practitioners let their thinking about this disease be shadowed because they are aware that the basic aetiology of dental caries is unknown. When there are so many known facts about the disease, it is criminal for us to throw up our hands in discouragement. It is true that we have at hand a very clear path of treatment and yes, even prevention.

The definition—dental decay is the dissolution of enamel and the necrosis of dentine.

This leads us to the characterization of the disease.

The first important observation is, that in order for dissolution of enamel to occur, or in other words, the initiation of the lesion, the tooth must erupt into the environment of the outside world. As long as it is in its developmental crypt, necrosis of the tooth is never seen as it is viewed in the mouth. Now since this is true, I believe we may say that this disease of teeth is one influenced by environment.

Next, I believe we can agree that children whose teeth are subjected to this disease most frequently have one or more parents whose susceptibility is manifest. Now we might hypothesize that this evidence indicates that we are dealing with a congenital or familial disease. It would take more evidence than I have presented here to prove this point, but certainly we may say that the familial tendency of the syndrome is dominant in siblings and parents of highly susceptible persons. Perhaps, though, this evidence may be the result of similar environment rather than similar constitutional weakness.

Next, these clinical observations may be made: That the distribution of the lesions is in those areas of the teeth most vulnerable to collections of mouth debris. Also, that these areas of vulnerability become manifest in direct proportion to the degree of hygiene and service age of the tooth; first, in the deep grooves and fissures, next in proximal areas of broad teeth, and so on. Age of the patient does not seem important—incidence of therapy demands versus age—yes—but susceptibility—no. Thus, it would appear again that environment is a dominant factor.

Now these bits of evidence only mean one thing to me, and I am sure you are all ahead of my theme. One of the most important steps in either therapy or prevention is to alter the environment of the teeth.

Now the known facts about the characteristics of this disease are multiple

and I only want to mention two more which assist in pointing the way to control.

There is ample evidence that epidemiologically there is a vast geographical difference in susceptibility of populations. Many things may, and probably do, contribute to this evidence. I suppose that again we might say that the agencies influencing the host are the result of environment. Indeed, the most important evidence on this observation today is the influence on tooth resistance to decay by the host exposed to tooth fluoridization by the presence of fluoride compounds in the communal water supply.

Finally, I would remind you that this is a progressive disease. If you will go along with my definition, you will remember that dissolution of enamel is the process by which the lesion is initiated. Following this penetration of armoured surface of the tooth is the more rapid progress of proteolytic breakdown of the dentine with the resulting necrosis so toxic that upon contact with the vascular pulp, the classic signs of infection, heat, pain and swelling, become violent.

From this brief discussion of the disease it must seem reasonable that we have ample opportunity to influence the environmental agencies of this disease. You know the methods of this influence as well or better than I. Do you employ them?

Do you insist on seeing your child patients early enough and often enough to surgically interfere with the beginning lesion and thus render a safe prosthesis?

Do you expose the teeth of your patients frequently enough to roentgenographic assay to be sure that you are locating all lesions?

Do you take the time to instruct your patients in personal oral hygiene and insist that they carry it out?

Do you instruct the parents on the importance of good, balanced nutrition—at least as far as we know it today? More important, do you discuss their

menus and eating habits with them so that you indicate a diet the sugar content of which reduces the favourable substrate in the mouth which influences decay? The evidence on this point makes mandatory your instruction to patients.

Do you support the health officers of your community who are proposing the addition of fluoride compounds to communal water supplies?

If you are doing these things, well then, I have been wasting your time. If you are not, then begin today for you are betraying your office.

GROWTH GUIDANCE

Now permit me a few remarks about what seems to me the second most important problem in paediatric dentistry. That is guidance during growth and development.

The definition, character and therapy of these difficulties are not as clear here as in dental decay. Yet there are certain things definite enough that we should not neglect them because of general ignorance of the subject.

It is always amazing and distressing to me that such simple things as the following are not always observed by otherwise good dentists:—

Early and regular roentgenographic assay of the developing and transitional dentitions to determine the presence or absence of all expected teeth: the direction of their eruption: the presence of supernumerary teeth or other anomalies such as dentigerous or follicular cysts, which are not uncommon in children: the character of bone in which teeth are imbedded. These things you must know if you are to be responsible for the dental health of a child.

No reliable knowledge of the child's developing dentition can be gained without observing the parents when possible. Somaticly does the child favour one parent dominantly? Does he have father's teeth and mother's face. These things you should know.

What is the expected chronological

pattern determined by taking the early developmental history from the mother?

Do all upper teeth encase all lower teeth? Don't be disgusted with me for posing this question for, all too frequently, I have seen developmental crossbites which were never called to the patient's attention because his dentist failed to observe his closed occlusion. Yet, that same child may very well have adequate fillings in his teeth.

Do you always record the anterior posterior relations of the opposing jaws and dentitions, keeping in mind that the ideal is the classic Angle Class I classification?

Are you mindful of the myofunctional influence on the dentitions? What are the tonic conditions of the muscles curtaining the teeth? Is the upper lip short? The lower lip loose? Does the child have a "bulldog" jaw denying room enough for a "normal" tongue? Are there any peculiar habits in breathing, chewing or swallowing which may influence the position of his teeth?

Does the child indulge in pernicious mouth habits such as nail-biting, prolonged thumb-sucking or sucking hair, garments or blankets?

If a primary tooth is lost before the position of its successor can claim the space, do you observe the area and, if necessary place a mechanical space maintainer?

Do you use an orthodontic consultant?

These things are important and any dentist assuming the responsibility for a child is derelict in his duty if he fails to observe and record these facts.

CHILD MANAGEMENT

Now, the third thing which I told you I considered important in paediatric dentistry was child management. The evening is already growing much too long for me to elaborate on this subject exhaustively even if I were able. There are, however, a few things I would like to say, particularly

about the dentist's attitude on this subject.

Normal children are equal in intelligence to adults. The difference in behaviour is not one of intelligence but of experience. Therefore, it behoves the dentist to act naturally as children do and keep the range of his communication with them within the range of their experience. If you can free yourself from the false attitudes we practise in our relationships with adults, the serving of children will become an increasing delight. The average child, even the pre-schooler, is amenable to suggestion when things are carefully explained to him. No intelligent child will tolerate without resentment, the hasty imposition of unexplained dental procedures by the authority alone of the operator being an adult.

The overwhelming majority of normal children can be served without elaborate management techniques. When the really difficult child does present himself to the general practitioner, however, he should preferably be referred to someone who devotes most of his time to children. If this is impossible, as it frequently is, then only those services necessary to guard his general health should be imposed on him by force. Certainly such children do not deserve your best attention, whatever the cause of their behaviour, until they gain control of themselves. It should be explained to both the parents and the child in this manner.

Abnormal, incompetent and neurotic children, of course, deserve and should get special attention. My pet answer for these children, is complete service under general anaesthesia. It is, of course, an elective procedure and requires hospitalization.

Do you use the psychologist and the psychiatrist as consultants?

The last remark I should like to make about child management is this. If your own behaviour is so poorly disciplined that children anger or irritate you, then be honest enough to admit your weakness and refer your child patients to someone more tolerant.

EDUCATION

The final category in paediatric dentistry which I mentioned was, education of child patients and parents. I have already made some remarks apropos this obligation but would not dare end this discussion without further admonishment. You cannot afford not to take the time to teach your patients and their parents the essentials of good oral hygiene and routine dental care. You know what these are and I need not recall them here, but it is essential that the public be made to understand the advantages of the excellent services we offer them. No matter what adjuncts we employ such as public health flyers, radio and press releases and so on, there is nothing so effective as the words of your own mouth. Don't neglect this opportunity.

These things of which I have been speaking are commonplace, yet these are the true fundamentals of successful practice on children. Attend them well and we will win and deserve the continued trust of the public. We will fulfil our promise.

Children are practice insurance. Without children there are no adults. As I said in the beginning, today's harvest is the result of seeds planted yesterday. In the words of a proverb from Solomon

"Train up a child in the way he should go,

And when he is old he will not depart from it."

300 Longwood Avenue

"No civilization is destroyed from the outside unless it has already decayed from within. No empire is conquered from abroad unless it has first destroyed itself."

"A bull's-eye is usually about the last part of a target to get worn out."

Some Aspects of the Chemical Mechanisms Involved in Dental Caries

JAMES J. RAE,* B.A., M.A., Ph.D., Toronto, Ontario

OVER the past five or six years a series of experiments has been performed on the above topic under the aegis of the Associate Committee on Dental Research of the National Research Council in the Chemistry Department of the University of Toronto.

The results have been published in a series of articles in the *Journal of Dental Research* and although there seems to be a lack of correlation between certain aspects of the work the underlying theme was an attempt to relate the chemical properties of saliva with dental caries.

The work to-date can be subdivided into three main sections:

1. The protective effect of sodium fluoride.
2. Chemical factors in saliva and their relation to l.b.a. counts.
3. Ammonia production in saliva.

(1) The "protective" effect of sodium fluoride was demonstrated by immersing whole teeth in 1% lactic acid at a pH of 4.0 and in 1% lactic acid also at a pH of 4.0 to which had been added 0.2% sodium fluoride. In the lactic acid solution marked decalcification occurred in 24 hours but with the fluoride added no decalcification occurred. In an attempt to explain this phenomenon the experiments were repeated with ground tooth enamel and powdered calcium phosphate. The loss in weight of tooth enamel and calcium phosphate or the "apparent solubility" was considerably less when sodium fluoride was added to the lactic acid solutions. However the amounts of phosphate that went into solution was almost the same whether fluoride was added or not. This result suggests that even when fluoride is present the decalcification of teeth and the solubility of

the tooth enamel and calcium phosphate in the lactic acid solution is not affected. When fluoride is present however the dissolved calcium salts are apparently reprecipitated as insoluble calcium fluoride.

If this were so any ions which form insoluble calcium salts (such as oxalate) or any ions which form insoluble phosphate salts (such as lead) should exhibit similar effects, i.e. protect the teeth from acid attack and reduce the weight of tooth enamel or calcium phosphate dissolved by lactic acid. Such an effect was obtained with ammonium oxalate, lead nitrate, barium nitrate, silver nitrate and silver fluoride. In the case of lead nitrate and silver fluoride the weight of precipitate produced exceeded the original weight of powder used.^{1, 2}

(2) There is in whole saliva a group of enzymes some of which are phosphatase, urease and amylase. Only the last seems to be a true salivary enzyme for the other two are removed by filtering the saliva which removes bacteria and cellular debris.

Since phosphatase is needed for carbohydrate metabolism it was thought that a high phosphatase activity and a high l.b.a. count might be found in the same saliva. No relationship was observed however between phosphatase in saliva and l.b.a. count.^{3, 4}

The enzyme urease is needed in many protein degradations and is a possible source of ammonia in saliva. Its presence was demonstrated in saliva but again no relationship was observed between the activity of this enzyme and the l.b.a. count of the saliva.⁵

Amylase is an enzyme that is retained in saliva after Seitz filtering. Unfortunately this enzyme is activated

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by chloride ion. The "amylase activity" of saliva was unrelated to the degree of dental caries but to make this study more exact all the salivas should be adjusted to the same chloride concentration and then the amylase activity measured.

(3) When whole saliva is incubated at 37° for 24 hours a considerable amount of ammonia is formed. No relationship was observed between the amount of ammonia produced and the l.b.a. count of the saliva used.

The addition of fluoride or glucose to the saliva inhibits ammonia production. Saliva to which urea and glucose have been added produces about twice as much ammonia as saliva to which urea alone has been added.⁵

The interpretation and significance

of these "in vitro" findings must await further investigations but the present indication is that none of these determinations can be used as a rapid method for assessing caries activity by means of chemical analysis of the saliva. It is curious to note in passing that fluoride inhibits ammonia production and to wonder about the combined effect on a child's teeth of fluoridated water and an ammoniated dentifrice. The able assistance of Mr. C. T. Clegg, Miss D. F. Berry and Miss M. Ballantyne is gratefully acknowledged.

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"I Am A Bleeder, Doctor"*

by J. A. FOLKINS,† D.D.S., Vancouver, B. C.

"I AM a bleeder, Doctor," or some such statement expressed a little differently but meaning the same thing, will be heard occasionally all during our years in practice.

This statement creates a mild confusion, and immediately several questions come to mind . . . Is this patient really a bleeder, and how are we to be sure of that? We wonder what the cause is and whether we will be able to deal with it successfully. Why should we suddenly be confronted with this problem when usually our exodontia and surgery patients present no such complications?

A second confusion develops and this one a little more embarrassing! If a short history leads us to believe that the patient really is a bleeder, we may feel that it would be advisable to contact the family physician in order to check the medical history. In the ensuing conversation the physician will describe the medical aspects of the case

and herein lies the cause of our embarrassment. All too frequently we realize that we are understanding only a part of what the physician is saying and yet we endeavour to carry on as intelligent a conversation as possible. We try to find the proper word for the proper place, striving to understand what the physician means by the particular terminology he is using.

This second confusion need not always occur, but all too frequently it does. Why? The answer to this question is found in the fact that other dental problems with which we are faced day by day, occur far more frequently than do disorders of the blood. The infrequency of our contact with these blood disorders has permitted our knowledge of them to fade. The stimulus of every-day occurrence is not sustained, and yet when we least expect it, a knowledge of blood chemistry becomes necessary and we should always be prepared.

* Presented at January 1952 Meeting of the Vancouver and District Dental Society.

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When the patient makes a statement, "I am a bleeder, Doctor," we can ascribe it to one of two factors: (1) It is based on fact—The bleeding is resultant of a definite pathological condition. (2) It is based on a psychic reaction to an experience in the past, and therefore imaginary.

These two factors form the basis of a study with which every graduate should be conversant in order to treat and discuss intelligently with the patient, or patient's physician, the pathological factors associated with the blood dyscrasias.

The study of these dyscrasias requires, as a foundation, a picture of the normal blood, its component parts and function. (The following is not a detailed study of blood chemistry, but only what may be considered sufficient to provide a working knowledge for the use of the general practitioner.)

1. PLASMA:

The plasma is the vehicle by which the blood cells are carried throughout the body, and through which the blood cells' function is exercised. This blood fluid, chemically speaking, consists of three component parts—water, salts and proteins. The water and salts are absorbed from the intestines, and the proteins from the liver.

2. CELLS:

The blood cells are all produced in the marrow of the long bones and vertebrae, with but one exception. The lymphocyte, one type of white cell, is produced in the lymph glands. The blood cells are of five main types:

(a) *The Red Cells (Erythrocytes)*—These carry the oxygen to the body tissues from the lungs, and the carbon dioxide from the body tissues back to the lungs. They are small, round, discoid bodies, concave on each side, and float in the blood stream in large numbers—the adult normal being $4\frac{1}{2}$ –6,000,000 per cu. mm. of blood. The number is slightly less in the female, 4–5,500,000, and slightly more in chil-

dren—5–8,000,000. The red colour is due to the haemoglobin (Haemo-iron; globin-protein).

(b) *The White Cells (Leukocytes)*—These are part of the defence mechanism of the body. They engulf invading bacteria and carry off waste products. The normal average is about 5–10,000 per cu. mm. of blood.

(c) *Lymphocytes (Another White Cell)*—These carry off waste products, and are put in an extra category because they are the only white cells, as mentioned previously, which are not produced in the bone marrow. Lymphocytes are produced in the lymph glands.

(d) *Monocytes (Another White Cell)*—Normally about 4–8% of the white cell count. These cells engulf particulate matter in the blood stream. Their action is best demonstrated in the laboratory, by injecting India Ink into the blood stream of an experimental laboratory animal and noticing the speed with which the particles of ink are engulfed by these Monocytes.

These cells are associated with surgical haemorrhage in very rare instances only, such as in Mononuclear Leukemia, but come into more prominence with the more prevalent febrile diseases, such as in Infectious Mononucleosis. One school of thought feels that Monocytes are an index of the presence of a virus infection.

(e) *Platelets — These discoid bodies*, numerically about 250–500,000 per cu. mm. of blood, float around in the blood stream. They are also a part of the defence mechanism in that they share in the clotting process which occurs during haemorrhage. When haemorrhage occurs and blood escapes from its normal channels, the platelets escape too, and upon touching a dry surface, they explode, so to speak, forming a meshwork or screen of protein threads throughout which flows the fibrin of the blood serum. These two harden together and form a clot.

This is a brief general picture of the normal blood and its activities.

The following diagram will explain the process of blood-clotting:

1. THROMBOKINASE—
Enzyme in tissues.
unites with and changes
2. PROTHROMBIN..Chemical in blood.
to
THROMBIN Chemical in blood.
This changes, with
the help of Calcium,
FIBRINOGEN Protein in blood
to
FIBRIN.
3. PLATELETS....Upon touching a dry
surface they explode into a
meshwork and unite with the
Fibrin to form the clot.

The above is an instantaneous chemical reaction, and is self-explanatory.

In the formation of a clot there is a normal and average clotting time and a normal and average bleeding time:

Clotting Time Normal—1 to 8 mins.
Average—3 to 4 mins.
Bleeding Time Normal—1 to 5 mins.
Average—2 to 3 mins.

We are more familiar with what is known as the "Clotting" or "Coagulation" time; yet, the "Bleeding" time also is usually taken in a test of this nature. One supplements—or is a check to—the other. Neither of these tests acts as an indicator of *what* is wrong, but are used only to detect if something is wrong with the clotting time of the blood. When we find a clotting or bleeding time approaching the upper range of their normal limits, we should be on guard. Quite frequently we find that one or the other "time"

tests exceed their normal limits, in which case we should suspect that some systemic disorder exists and refer the patient to his family physician. After several tests, a normal clotting time with a prolonged bleeding time may indicate a capillary wall defect due to either the presence of toxins in the blood or a lack of nutrition.

A patient has been seated and prepared for an extraction. He says to the dentist, "I am a Bleeder, Doctor." Let us find out whether such a statement is true or imaginary. The test is simple. All we need is a spring lance and a glass capillary tube. (*Figure No. 1*). Just swab the end of a finger or an ear lobe with iodine and reduce with alcohol, to sterilize the field as well as possible. Then, after having adjusted the spring lance to ensure a good-sized drop of blood, hold the area firmly and puncture the tissue. The moment blood appears, quickly gather as much blood as the capillary tube will draw in and hold in the closed palm of the hand to keep it warm. Concurrently, have your assistant start the stop-watch the moment the blood appears. Now two actions must be taken as closely together as possible. Every half minute a little fragment of the capillary tube should be broken between the fingers and slowly drawn apart to see at what time the blood starts to become stringy. This will be the Clotting Time. Concurrently, each half minute, a piece of filter paper is touched to the top of the drop of blood, and after blood has been

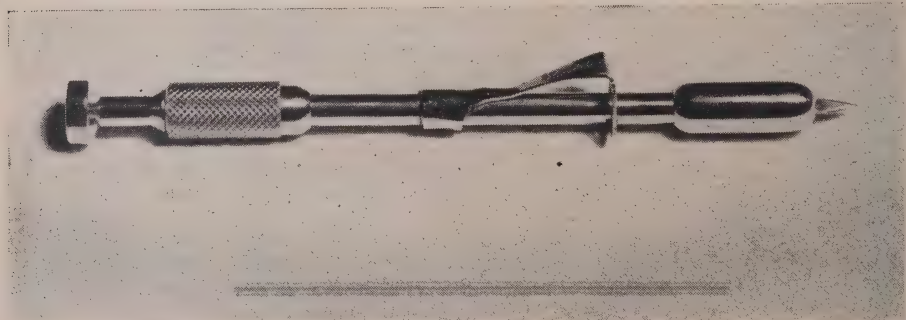


FIG. 1 Spring lance and glass capillary tube.

absorbed, it is removed and will show a circular area of blood stain on the paper. This is continued until very little or no blood is absorbed into the filter paper. This will establish the Bleeding Time. The process is not difficult and may avoid much worry for the patient, and inconvenience for the Doctor. If a long clotting time is shown, it will be wise to pre-medicate to prevent a possible haemorrhage.

The preceding is a general picture of the normal blood, its component parts and function, the chemical changes occurring in blood-clot formation, and a method of determining the blood-clotting time.

SOME OF THE COMMON DISORDERS

1. THE ANAEMIAS:

Anaemia is a disorder of the blood in which there is a reduction in the amount of haemoglobin being carried by the red blood cells and may or may not be associated with a reduction in the number of red blood cells. As mentioned before, the red cells carry oxygen to the body, and carbon dioxide back to the lungs, and in doing their work, carry two atoms of oxygen to one of iron.

By far the most common are the Hypochromic or Secondary Anaemias where the red cells have a subnormal amount of haemoglobin. It is possible to have a normal number of red cells, with only fifty per cent haemoglobin. Irrespective of the number of red cells, the haemoglobin content is the yardstick of the degree of anaemia, but the number and size of red cells classifies the type of anaemia. (We remember patients with a normal number of red cells, but only forty per cent haemoglobin, yet they were rosy-cheeked. This is due to an unusual vascular surface dilation. Conversely we may find pallor with normal haemoglobin content).

The following is a classification of the more common Anaemias:

(a) *Anaemias of Acute Haemorrhage.* The degree of anaemia of this type depends on the speed and amount of

blood lost, but a return to normal may be attained by transfusion. Thus the platelets will be increased and the coagulation time decreased.

(b) *Anaemias of Chronic Blood Loss.* Where loss of blood exceeds the capacity of the bone marrow for replacement, such as in abnormal menstrual loss, haemorrhoids, bleeding ulcers, etc.

(c) *Anaemias of Acute Infection.* Here organisms and toxins have a destructive effect on the red cells, such as invasion of the red cells by parasites, as in malaria.

(d) *Anaemias of Chronic Infection.* Here we get profound anaemias, with lessening of the activity of the red cells, inhibition of bone marrow activity, together with an impaired appetite. The colour index is low and the plasma is pale. This is a symptom of a malignant process during the cancer years; also a symptom of liver damage.

(e) *Anaemias of Pregnancy.* The foetus needs iron and red cells. Gestation is a period of digestive upset and low food intake.

(f) *Haemolytic Anaemias (Jaundice) Type.* Here haemolysis is taking place due to a more fragile red cell, and pigment and haemoglobin are set free.

(g) *Anaemias due to Defective Blood Formation.* These are due to iron deficiency, also lack of specific anti-anaemia factors, as in pernicious anaemia, or to toxins which induce aplastic anaemia through lessening of the bone marrow.

These are the most common of the many forms of anaemia. There are others, but they are less frequently encountered. Addison (the discoverer of Pernicious Anaemia), when discussing the anaemias, is quoted as saying, "It makes its onset in so insidious a fashion that the unfortunate sufferer can scarcely fix a date for the onset of the weakness which is soon to become so extreme."

Most severe anaemias have been diagnosed and treated before the pa-

tient comes under our care, particularly in younger people where an extreme weakness (which is one of the symptoms of anaemia), will be more of a matter for concern, especially if there is no apparent reason for it. But it is possible for one of our patients to be unknowingly suffering from a severe anaemia, especially in the older age groups. These older people are prepared to accept "weaknesses" and ascribe them to their old age, not realizing that they are suffering from a systemic disorder.

2. THE PURPURAS:

(a) *Symptomatic Purpura.* These differ from true haemorrhagic purpuras in that these are the purpuras which are due to capillary wall defect and in which platelets are normal. The clotting time and bleeding time is normal, and when the haemorrhages do occur, they are not dangerous, and are usually into the tissues and from the gums. They differ from the essential purpuras in that the platelet count is normal and they are accompanied by a urticarial or surface itching.

(b) *Essential Purpura.* This type of purpura is usually intermittent and associated with a decrease of blood platelets often below the 100,000 level per cu. mm. Excessive phagocytosis, or engulfing of the cells by the spleen, and toxins acting on the platelet-forming elements in the bone marrow, have been blamed for the cause.

(c) *Thrombopenic Purpura.* This type implies haemorrhagic symptoms and reduced platelet count due to some evident cause such as a chemical poison, severe infection or inadequate diet.

3. WHITE CELL CHANGES:

There are also changes in white cell count, although these changes are not classified as Anaemias. An increase in white cells is called "Leukocytosis" and is due to infection, or, as in Leukemia, due to pathological changes in the white cells. A decrease in white cell count is known as "Leukopenia" and is due to the presence of toxic drugs.

The function of the white cells is in combatting foreign bodies, especially bacteria, thus acting as a protective mechanism and providing a diagnostic factor. Let us not forget that we are still leading up to haemorrhage, and the factors associated with it; yet at the same time we are not neglecting the normal picture, or the changes in red cell count, both of which may be associated with haemorrhage through its many ramifications.

4. OTHER CHANGES:

Bleeding may be interrupted at four levels.

(a) *At the Prothrombin level.* Here there is evidence of either deficiency of Vitamin K, or else damage to the liver, in which case Vitamin K, already supplied, is not synthesized into Prothrombin by the liver.

(b) *The Fibrinogen level.* This level is represented by a nutritional deficiency.

(c) *The Platelet level.* This level is the level wherein an abnormality in platelet count or quality is accounted for by pathological changes or congenital factors, respectively.

(d) *The Capillary Fragility level.* This level can be existent as a result of dietary deficiency (and remedied by the administration of Vitamin C and Rutenin), or diseases as in Scarlet Fever where a rash is evident.

5. CALCIUM:

Until recently, authorities in blood chemistry were convinced that the administration of calcium was necessary in the treatment of blood clotting disorders. This opinion has now been reversed and it is known that there is always calcium present in the blood stream in sufficient amounts to make its administration unnecessary. Only a trace is needed in the clotting process, and it is felt that amount is always present.

COMMON CAUSES OF THE FAILURE OF THE BLOOD TO CLOT

1. Liver damage. Failure of the liver

to change Vitamin K to Prothrombin.

2. Abnormal blood platelets: (Congenital).

(a) As in Thrombopenic Purpura, where the platelets are in decreased numbers.

(b) As in Haemophilia, with the platelets present, but are too ruggedly constructed to explode.

3. Lack of platelets. As in Myelogenous Leukemia, where leukemic tissue crowds out the red cells and platelets in the bone marrow: In other words, cancer of the white cells.

4. Dietary deficiency. Faulty formation of proteins, fibrinogen. Such occurred quite frequently in the Prisoner-of-War Camps.

5. Capillary fragility. The interstitial cementing substance between the cells of the blood vessel wall is weakened by toxins of disease, such as in scarlet fever, and a rash appears.

TREATMENT OF HAEMORRHAGE

Needless to say, determination of the underlying causes of the failure in blood clotting, and the treatment, will be carried out by the physician or clinical laboratory. Nevertheless our help is important in noticing a failure of this nature, and it is our duty to be prepared to handle such an emergency. Therefore, treatment of a haemorrhage in Oral Surgery and Exodontia becomes of prime importance to us. Below are described various methods of stopping a haemorrhage, listed according to situations which could arise in general practice:

1. In major oral surgery a knowledge of the arterial and venous supply is most necessary, because if an artery or vein is severed, either accidentally or of necessity, it must be securely clamped or ligated.

2. In such cases as maxillary or mandibular cysts, where no major vessels are encountered, and yet seepage is continuous around the bony wall, pack with oxy-cellulose (a good example is "Hemopak" manufactured by Johnson and Johnson) and suture tightly. In

stubborn cases, if the point of seepage can be located, a sharp tap with a blunt instrument (West's Process Instrument—See Figure No. 2) and mallet will crush the bone at that exact point and help in arresting the blood flow.

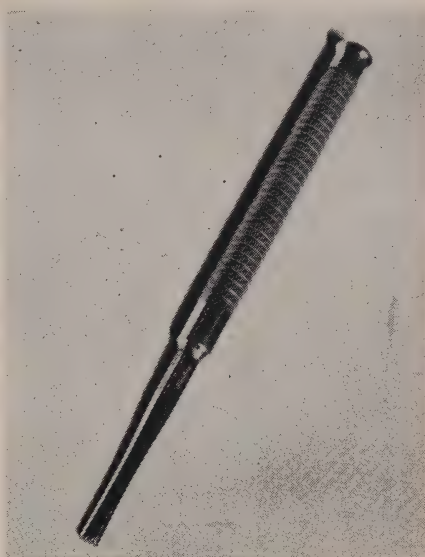


FIG. 2

"West's process instrument, together with a mallet, may be used to compress the bone at the point of seepage."

3. In minor, or surface surgery, usually tight ligatures will suffice.

4. Most haemorrhages in the experience of this practitioner arise out of singular or multiple extractions, full-mouth extractions, after the removal of a difficult third molar, and post-operative to the removal of the impactions.

(a) *Single:*

A primary haemorrhage occurring after the removal of a single tooth (providing the tooth is in what may be called a "normal" position), may be treated in one of two ways:

I. Remove all of the superfluous clot from the socket and then pack with a small amount of Johnson's "Hemopak," just enough to half fill the socket, or in the case of a tooth with multiple

roots, just enough to cover the interseptal bone. If the interseptal bone is too prominent, it should be reduced. On top of this is inserted a compressed ball of absorbent cotton which has been soaked with a haemostatic, (e.g. "Hemodyne" manufactured by the Mizzy Company). This ball of cotton should more than fill the socket and leave enough surplus so that digital pressure may be applied without the finger pressing against the gingival tissues. This last application is held in place by the finger of either the nurse or the patient and pressure is applied and sustained for about twenty minutes. If, at the end of this time, and after the finger has been removed, there are no signs of bleeding, the cotton packing may be gently removed and the patient discharged.

II. As an alternative, another good haemostatic is a mixture of tannic acid and glycerine (15% tannic and 85% glycerine). Use as mentioned above, with gauze, because gauze will absorb it whereas absorbent cotton will not.

(b) *Multiple:*

In a situation where haemorrhage has occurred in two or three sockets, one approximating the other (*Figure 3*), remove all the superfluous clots and take an impression of the area with a bridge tray, using black compound (*See Figure No. 4*). (Black compound is preferable, having more strength). Cool, remove the impression, trim off the surplus and then remove the compound from the tray, being careful not to break the impression. Lightly heat the surface of the compound, which is in contact with the teeth of the opposing jaw, insert, and have the patient gently close. This process may have to be repeated until the pressure against the impression is equally distributed to the opposing dentition (*See Figure No. 5*). Leave at least $\frac{1}{8}$ inch of compound between the occlusal surfaces of the teeth to prevent breakage of the impression. Remove the impression, line with a layer

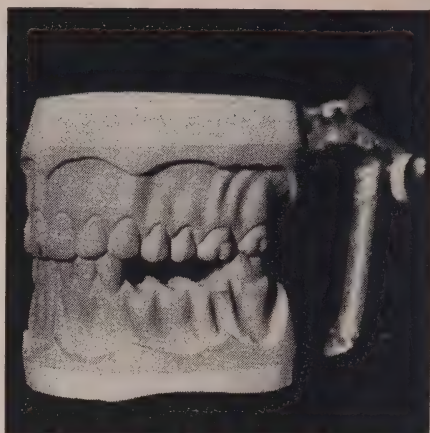


FIG. 3

Model representing three postoperative sockets wherein haemorrhage has occurred.



FIG. 4

The impression has been taken with black compound.

of gauze which has been soaked with tannic acid and glycerine (*See Figure No. 6*), then re-insert, have the patient close and sustain the pressure for twenty minutes (*Figure No. 7*). The impression is removed and if no bleeding is apparent, the patient is dis-



FIG. 5

The pressure against the impression is equalized after the outer surface of the compound has been lightly beaten.

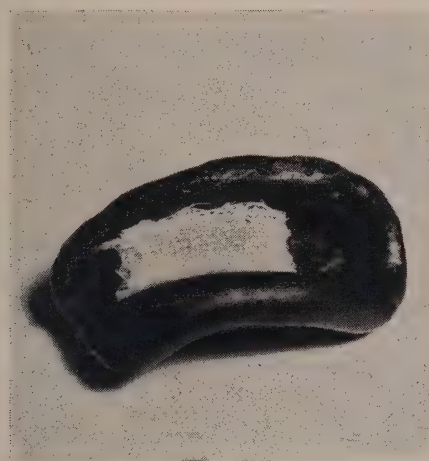


FIG. 6

Gauze, soaked with a mixture of tannic acid and glycerine, is inserted into place.

charged. Several steps in this method may be eliminated, depending upon the cooperation of the patient, the convenience of the practitioner and whether or not there is an opposing dentition. This method may also be used with single extractions.

(c) Full Mouth Extractions:

In instances where the haemorrhage is from several isolated sockets, or

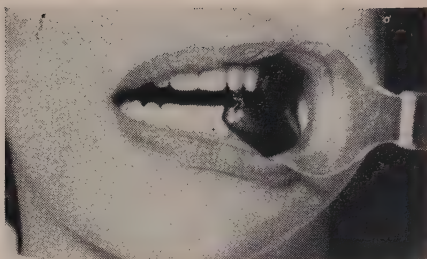


FIG. 7

Pressure is applied for twenty minutes.



FIG. 8

Model of the maxillary arch after a full upper extraction. Gauze, soaked with a mixture of tannic acid and glycerine, is inserted into place.

where seepage or free bleeding is general, an impression is taken of the now edentulous arch, using black compound (Figure No. 8); and the same directions followed as suggested in the previous paragraph (Figure No. 9). Then the entire ridge area of the impression is lined with the tannic acid and glycerine-soaked gauze, or "Hemodyne"-soaked cotton. Other than this, the treatment remains the same.

(d) Impactions:

In a haemorrhage post-operative to the removal of a lower third molar, impacted or not, we may have a few



FIG. 9

Pressure is applied against the full upper impression and sustained for 20 minutes.

more difficulties to contend with. We are confronted with the relationship of the root apex to the artery or vein within the inferior dental canal. Whether the third molar is impacted, or is in normal occlusion, its root apex is often in direct contact with the inferior dental canal, within which is enclosed the identically-named artery, vein and nerve. The root may divide, enclosing the canal on two sides, or it may just touch it. Occasionally, it may completely surround or hook underneath it. In removal of such a tooth, the artery may be accidentally severed with instruments, or it may, of necessity, be severed due to an abnormally sharp curve on the apex of the root. We must not forget that the lower third molar area is at the junction of the hard gingival tissue and the softer and movable tissues of the tonsillar wall.

In such instances, suturing is usually insufficient and we must resort to chemical haemostatics and pressure again. Here Johnson's "Hemopak" and absorbent cotton again come into use: About three inches of this sterile and absorbent "Hemopak" are packed into the socket under pressure. On top of this is inserted a compressed ball of sterile absorbent cotton which has been soaked with Mizzy's "Hemodyne." Press this cotton tightly and have it held by the nurse or patient for about twenty minutes; then suture tightly, enclosing the cotton pack, and leave overnight. If, during this treatment the

haemorrhage has stopped, the patient may be discharged, but advised to return the next day to have the cotton removed before it becomes an irritant. If, upon the removal of the cotton the next day, the bleeding has stopped, the patient may be discharged.

If much difficulty is experienced in controlling a haemorrhage, and trauma of the tissues has been extensive, an antibiotic should be administered. This applies particularly to the lower third molar area where post-operative oedema and trismus occur so frequently. (Penicillin in oil, 400,000 units given intramuscularly, is sufficient. But if the patient is penicillin-sensitive, use aureomycin capsules — 250 mgms., 1 QID for 3 days). Either of these antibiotics will act as a precautionary measure against infection and, therefore, will also serve to lessen the degree of pain from a possible, subsequent dry socket.

In impacted cuspids, upper molars, bi-cuspids, etc., the same packing technique may be used.

5. On occasions when the practitioner is called out at night, it will save a great deal of time and distress if he adheres to the custom of keeping, at home, a small kit of tannic acid and glycerine mixture; gauze; absorbent cotton; "Hemodyne" and a pair of college pliers.

6. When a patient calls the practitioner at home and reports a haemorrhage, it will be well to remember some of the home remedies. As mentioned previously in this article, haemorrhages may be either factual or imaginary, and in both instances, the home remedies may avoid a great deal of inconvenience. Advise the patient to compress a ball of absorbent cotton, or clean handkerchief, and place it over the bleeding socket, applying pressure for twenty minutes. Or suggest to the patient that he place a used tea bag, which contains tannic acid, under the cotton and apply the same pressure. It has served the purpose on a good many occasions.

7. In cases where bleeding will not cease after all efforts, the patient should, of necessity—and most advisedly—be hospitalized and given one or more transfusions until bleeding has ceased. Thus there is always a last resort, even in cases of extreme haemorrhage. Once a patient is admitted to the hospital, and the transfusion requested, its administration will be automatic and the Doctor need have no worries about blood groupings or the dangers of the Rhesus negative. Every patient receiving a transfusion is grouped by the hospital authorities, and classified. Yet a knowledge of this phase of serology is essential.

All blood is grouped under the letters "O", "A", "B" and "AB".

All blood is grouped under the serological classifications "RH Positive" or "RH Negative".

Group "O" is a universal donor, but receives only from its own group.

Group "A" is a donor to "A's" only, but receives from "O" and its own "A".

Group "B" is a donor to "B's" only, but receives from "O" and its own "B".

Group "AB" is a universal receiver, but can give only to its own "AB".

"RH Positive" types present no worries at all, providing the groupings are adhered to.

"RH Negative" types are the ones which require strict attention and must receive "RH Negative" blood only.

The aseptic and antiseptic conditions under which a patient is treated, have a direct bearing on the possibility of subsequent infection and secondary haemorrhage, which will require the same treatment as in primary haemorrhage.

REFERENCES

- | | |
|----------------|---|
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| Nicholson | — "Laboratory Medicine". |
| Todd & Sanford | — "Clinical Diagnosis by Laboratory Method". |
| Gradwohl | — "Clinical Laboratory Methods of Diagnosis". |

Recent surveys indicate that approximately seventy per cent of the people of the United States never see a dentist. The vast majority of these "could-be" patients have dental defects that are crying for correction, but they are so afraid of being hurt that it is almost impossible to induce them to have their dental needs attended to. Economic factors are of far less significance than the fear of pain in keeping them from our offices.

The fact that several times as much money was left at race tracks last year than had found its way into American dental offices is proof enough that the man in the street has the funds to spend on things that he wants. The pathetic part of the problem is the recognition by people who have no dentistry done that they need our services—but they are afraid to take advantage of them.—Modern Dentistry.

Of the most immediate importance to all of us today probably is the physical security which can be obtained only by banishing war from this earth forever. The greatest security of all is spiritual security, an unflinching faith in the benevolence of God; it might be described as "peace of mind." The most unusual security on earth—and the one we take most for granted—is political security. So take all of these securities together: economic, physical, spiritual and political, bundle them all together and they represent the goal toward which every generation has striven for generations.

*Benjamin Fairless,
President U.S. Steel Corporation.*

Nothing is more common than the name of a friend, nothing more rare than true friendship.—Phaedrus.

Introducing A New Usage For Ethyl Chloride

by CHARLES A. LEVINSON, D.M.D., Brookline, Mass., U.S.A.

ETHYL CHLORIDE can be used as an excellent aid for the purpose of closing alveolar bone rapidly after the removal of teeth.

This new technique is simple:

When the patient has had either one or more teeth extracted he or she should return for a routine examination or check-up, particularly if one intends to construct some form of artificial replacement in the area of the extracted tooth or teeth. In order to obtain the maximum healing results for both the gingival tissue and alveolar bone, it is essential that nature be assisted in her healing course.

Make the clinical examination, take necessary x-rays, construct study casts, especially in multi-extraction cases or in edentulous mouths. This ethyl chloride technique now is introduced: Place a saliva ejector into the patient's mouth. All tissues to be anaesthetized must first be dried thoroughly then place a film of vaseline over the same area.

In order to prevent any of the ethyl chloride from going down the patient's throat, place cotton rolls and napkins in the patient's mouth in the rear of the oral cavity.

One should remember that ethyl chloride is highly inflammable. Keep it away from an open flame. After palpitating the gingival tissue in the area of recent extraction, determine where all the sore spots are. Saturate two cotton rolls with the ethyl chloride spray. Place one roll of the satu-

rated fluid on either side of the sore healing gingival tissue. Have the patient breathe through the nose and exhale forcefully through the mouth, using the thumbs or index fingers to hold the saturated ethyl chloride cotton rolls in position, over the sore area, until the gingival tissue is anaesthetized. This should take place within thirty seconds to a minute. The gingival tissue becomes blanched. The patient feels as though his mouth has been invaded with "dry ice". Determine if the patient senses a numbness in the gingival tissue—if he or she does, then apply pressure on the cotton rolls gradually, increasing the pressure between the thumbs or index fingers as strongly as the patient can tolerate it. The patient can inform one if the pressure is too forceful by simply tapping one's elbow. After a few minutes, the gingival and alveolar tissues will be completely anaesthetized. At this stage one can exert the maximum pressure until one has "ironed" out all the sore dilated alveolar bony areas and the internal and external alveolar plates will be pushed back to their normal positions. This will be accomplished without the patient experiencing any undue pain or pressure. Healing will be uneventful, and the patient will be very grateful for having made his or her postoperative care so simple and painless. Thus the restorative procedure will be facilitated.

16 Hamilton Road.

Believe me, every man has his secret sorrows, which the world knows not; and often times we call a man cold when he is only sad.—Longfellow.

The record demonstrates that when God goes out of the people's government, a great vacuum is created which immediately sucks in a tyrant to take God's place.—William Penn.

The Forum

THE UNSOLVED PROBLEM OF DENTAL EROSION-ABRASION

From Editorial by ARTHUR H. MERRITT, D.D.S., M.S., Sc.D., F.A.C.D., F.A.A.P.
in *Jour. of Periodontology*, Oct. 1951

Among the more or less common lesions affecting the teeth is one commonly referred to as toothbrush abrasion or, more accurately as erosion-abrasion. The exact nature of these lesions and their cause is at present far from clear.

That the toothbrush and the way it is used, is a factor there can be little doubt. Another factor too often overlooked, is the abrasive effect of the dentifrice. Since these vary in their abrasiveness it is not at all improbable that the dentifrice plays an important part in many of the cases seen in daily practice.

Several years ago the writer was asked by a colleague if he had noticed that patients using a certain well known dentifrice showed marked buccolabial abrasion of their teeth. A subsequent study of cases seen in practice confirmed this observation.

Another factor and one less well understood is the possibility in some cases of an acid exudate from the gingival sulcus causing a superficial softening of the cervical enamel, thus making it more easily removed by the combined action of the toothbrush and dentifrice.

Occasionally erosion may also occur

on the buccolabial surfaces of the teeth midway between the cervical margin and occlusal surface, possibly caused by an acid secretion from labial or buccal glands in contact with the affected teeth. Fruit acids, candy, etc., may, under certain circumstances produce lesions similar to erosion. Hirschfeld refers to cases of this type which he calls "chemical erosion" in which the "wasting . . . was generalized except for a narrow strip of enamel, close to and parallel with the gingival margin" which in some cases he refers to as being caused by fruit acids such as oranges and lemons. The fact that the enamel parallel with the gingival margin was not affected, would seem to indicate that the solvent, whatever it may have been in these cases, did not have its origin in the gingival sulcus.

Very rarely one sees a type of erosion-abrasion characterized by a gradual loss of tooth substance in areas not easily accessible to the toothbrush. A case recently seen by the writer showed considerable flattening of the lingual surfaces of several teeth, plus deep polished grooves on proximal surfaces.

That there is great need for more research in this field there can be no doubt.

OCCCLUSION: THE COMMON MEETING GROUND IN DENTISTRY

by VICTOR H. SEARS, D.D.S., Salt Lake City, Utah

Excerpt from Jour. of Prosthetic Dentistry, Jan. 1952

PERIODONTICS

The periodontist seeks to harmonize the occlusal surfaces of the teeth with

the patient's jaw movements. The teeth may be out of proper alignment for lack of orthodontic treatment or

even because of it. Nature does more or less arranging of the teeth to harmonize with the jaw movements and sometimes arrives at an arrangement that is functionally satisfactory even though not aesthetically so. Orthodontic treatment for aligning the teeth more evenly may increase the cuspal interference so that the patient needs the services of the periodontist.

Usually the patient's periodontic problems do not become acute until in his 30's when the interference due to steep tooth inclines causes greater horizontal forces on the teeth than their aging supporting tissues will tolerate.

Regardless of whether the teeth are even or irregular in arrangement, nature wears away more or less of the surfaces that might interfere with smooth articulation. But when there is an absence of abrasives in the food, as there usually is in our country today, the interference to the easy glide of the teeth in eccentric jaw movements causes horizontal pressures on the tooth roots in excess of nature's ability to withstand them. Then follows a train of evil consequences which cause the loss of teeth and alveolar process unless the tooth interferences are removed. We see the investing tissues break down especially in those mouths with steep cusp inclines. When nature fails to reduce

the cusp steepness sufficiently through the interposed abrasives during chewing, it becomes the duty of the dentist to do so.

The periodontist has the problem of apportioning the occlusal load according to the ability of the investing tissues to withstand the pressures. Especially should he reduce the inclination of cusps whose supporting value against horizontal component force is small, whether because the roots are short or the investing tissue is weak. He may also reduce the total occlusal area in order to reduce the amount of pressure under vertical force.

In estimating the degree of horizontal force on a tooth, the periodontist is aided by carbon paper spotting and by a feeling of movement in the tooth socket as the finger is held on the buccal or labial side of tooth and gum during the various articulations. But he should do more. He should mount study casts on an articulator adjusted to the individual jaw motions of the patient. Only then can he view the various occlusions from the lingual side. On the adjusted articulator he can make the alterations of cusp form. From the altered casts the operator could then make a template to be used on the natural teeth according to the technique well known in machine-shop practice of spotting with lamp black.

ANTIBIOTICS

by MALCOLM WALLACE CARR, D.D.S., F.D.S.R.C.S., Director of Oral Surgery, Metropolitan Hospital, New York; Lecturer in Oral Surgery, Graduate School of Medicine, Univ. of Pennsylvania.

Excerpt from report to be given at the 11th International Dental Congress, July 1952, as published in the International Dental Journal.

Most mouth organisms are penicillin sensitive, therefore penicillin is the antibiotic of choice in the treatment of mouth infections. Other antibiotics such as streptomycin, aureomycin and chloromycetin may be used combined with penicillin, and in streptococcal infection the combined use of the sulphonamid drugs may prove to be of even greater effectiveness. However,

there appears to be an increasing opinion that the use of combinations of antibiotics may not necessarily increase effectiveness. Penicillin is most effectively administered parenterally, usually by intramuscular injection, and may be supplemented by one of the sulpha drugs such as sulphadiazene or by a combination of sulpha drugs. There appears to be a complementary

action between penicillin and the sulphonamides and studies are being conducted in which drugs are being used orally. When given in combination there appears to be less tendency for the sulpha drugs to crystallize in the tubules of the kidney and cause anuria, particularly if the patient is well alkalinized. All sulpha drugs nevertheless are potent toxic agents and there appears to be some indication for limiting their use, particularly if the antibiotics may be used effectively.

The essential factor in antibiotic therapy is adequate dosage given early in the course of the disease. An average dose per 24 hours is one intramuscular injection (1 cc.) of 300,000 units of procaine penicillin G with 100,000 units of buffered penicillin G. This represents a combination of the soluble and repository forms of penicil-

lin. This dose should produce 4.0 units per cubic centimetre of blood serum. Sulphadiazene, 0.5 gram (7.5 grains) may be administered orally every four hours to supplement the penicillin. Aureomycin, chloromycetin and terramycin may be administered orally when indicated, 250 milligrams every 6 hours around the clock. Penicillin and sulphathiazole (microcrystals) also may be used effectively by local application directly into the alveolus following tooth extraction and in other mouth wounds following oral surgery.

Sensitization, or allergy due to increased susceptibility is not uncommon and may occur, in order of frequency, following the administration of penicillin, aureomycin, chloromycetin and terramycin. The use of one of the antihistamine drugs usually relieves sensitization reactions.

DENTAL ECONOMICS

by SIMON SHAPIRO, D.D.S., F.A.C.D.

Condensed from N.Y. Univ. Jour. of Dentistry, Jan. 1952

Dentistry being a service profession, dental economics treats of the efficient production of high quality dental services at a minimum cost in time and effort so as to enable the greatest number of people to take advantage of the service of the dental profession. The only really ethical way to increase your income, without making it difficult and burdensome to your patients and even prohibitive to some of them, is by increasing your productive efficiency either in improving the quality of the service you render or by so arranging your office that greater efficiency will result. If your instruments and supplies are so arranged that you can find what you need exactly where you know it to be, you save precious seconds by not having to look for them, and if you eliminate wasted motions, you can accomplish more work in a given length of time than you would otherwise and without extra strain. If, for instance,

you can do an operation in 15 minutes of equal quality to that which it used to take you 20 minutes to do formerly and you continue to charge the same fee for it, you have increased your income by one-third without increasing the cost of the service to your patient. While increase of cost to some patients might mean no hardship, to others such an increase might mean the necessity of doing either without this service or without something else equally important. For people of limited income who never have enough to satisfy all their wants, it is frequently necessary to choose which is more important to them, dentistry or something else. If we make dentistry sufficiently reasonable and attractive to them, it will win over something else and more of the consumers' dollars will be channeled to dentists. It is our duty and it is to our interest to make our service available to as many people as possible.

It is important for you to establish and maintain your reputation for fair dealing at any cost. Obviously the more skill and experience you have acquired, the more you are entitled to receive as compensation for your service.

The factors that enter into the building of a successful dental practice are the following:

1. A high sense of ethics, a sense of trusteeship for your patients' dental health.

2. A high degree of professional ability, the highest you can attain by constant studies and application to your work.

3. Cultivation of an agreeable personality, being pleasant, sympathetic, patient, cleanly, cultured, etc.

4. A constant effort to save your patient the expenditure of any more time or money than is necessary to attain the best results. That is particularly applicable to those of your patients who are not too affluent.

The most important practice builders for the future that I know of is catering to children as patients. It may tax your patience on occasion to deal with a spoiled cantankerous child where some extensive work is necessary. But if you exercise that patience and a little tact and gradually win the confidence of that child, and if you continue to do the right thing, you have made a patient for life. And

if you continue over a period of years to build such patients, you can readily see how your practice will grow with the growth of these children. After awhile you will treat their children.

A good efficient office assistant can make a great deal of difference in your practice. She is the first person that meets your patients when they come into the office and is a necessity.

Should your overhead figure to \$4,500 per annum, your per hour cost will be, say, \$3.00. In estimating fees, you start with the time cost to you, plus laboratory costs, plus material and supply costs, plus your fees for the time spent and in that way you arrive at the actual fee you should charge to your patient. We can not expect to make any big money out of our profession in the sense in which business men make it, for every dollar you make has to be earned by your ten fingers. There is another way of computing charges based upon the ability of your patients to pay. Such a method is being employed by many surgeons who, being forced to do a great deal of work for nothing in the wards of hospitals, reimburse themselves by charging high fees to those of their patients who can afford to pay them. Personally I think, that, while it may be a good method for the surgeon it is not so well adapted for the dentist and usually leads to disputes and embarrassment, often to litigation.

SIDE EFFECTS OF ANTIBIOTICS

From Jour. of Oral Surgery, Jan. 1952

Q.—One of my patients developed a rather severe infection following extractions and was treated successfully with a course of aureomycin. After about 10 days, when the infection had completely subsided, she developed a sore mouth and some white plaque lesions inside the cheeks. Why did this condition develop?

A.—When antibiotics are used the entire flora of the mouth is disturbed as well as knocking out the pathologic

invaders. Prolonged use of antibiotics, which have a wide spectrum of antimicrobial effect, leaves ample room on oral tissues for the yeasts and fungi not inhibited by the antibiotic. For these reasons the symptoms described in the patient are from a monilial infection. Such lesions are best treated with one of the detergent types of germicides. It is well to be aware of these side effects of the antibiotics and to avoid prolonged use beyond periods of definite indication.

A WORD TO THE RECENT GRADUATE

From the Bulletin Columbus Dental Society

For those of you who are just beginning your first year in practice, this can be the most important year in your professional career. It is the time when you decide just what character of dental practice you are going to conduct. Are you going to be a hole-filler, a dental shoeshiner, or will you build a thorough, conscientious practice based upon the scientific knowledge which you have been taught?

The first mentioned is the easier way and the line of least resistance and, for a few years, may be the most lucrative. The latter is the more difficult path to follow, will not compensate you so well at first, but in the long run, is the most solid foundation on which to build.

Someone once said, "If you do not run your practice, your patients will, and knowing very little about doing so, will do a very poor job of it."

You cannot render a thorough service to your patient without first having secured all available information by making a complete examination. In most cases, this should include the use of the x-ray. You will need the courage to insist upon this procedure, at the same time explaining to your patient why it is necessary. Don't be afraid to

talk to him. The more you explain before rendering the service, the less there will be to complain about afterwards. Most misunderstandings can be avoided by thorough planning with your patient before beginning the work.

Too many hours are spent in dental offices discussing everything but dentistry. Remember, your patient has very little knowledge concerning what a real dental service involves, and will never have any more unless you as a dentist give it to him. It is an opportunity for you to teach each of your patients the true concept of thorough dentistry. You will find the value of your service appreciated much more if you follow this procedure.

You are to be congratulated on becoming a member of our profession at this particular time in its history. Dentistry has grown up. Instead of a crude method of alleviating dental suffering, it has developed into a highly scientific procedure. As one of its members, you can add to or detract from what has been accomplished by years of unselfish research and hard work. Take inventory now and decide how you are going to meet this challenge.

FIXED BRIDGES

by SIDNEY SORRIN, D.D.S., F.A.C.D., F.A.D.M., F.A.A.A.S.
Associate Professor of Periodontia, N.Y.U. College of Dentistry;
Periodontist, Montefiore Hospital

Condensed from N.Y. Univ. Jour. of Dentistry, Jan. 1952

When teeth are not replaced after their removal function is impaired; teeth are forced to assume loads at incorrect angles not intended for these teeth; malocclusion results; food impaction develops; sensitiveness, caries and periodontal diseases follow. Teeth which are extracted should be restored as soon as possible to maintain the space and prevent extrusion of the opponent. Many dentists "do not wish to grind into good teeth, or clasp good teeth" in order to replace the extract-

ed teeth. As a consequence, serious periodontal and dental disorders develop.

The fixed bridge if properly constructed is an excellent means of replacing lost teeth. However, a number of errors present themselves which can be avoided.

(1) Before bridges are constructed, the opposing teeth should be "trued-up" to the proper occlusal line, so that harmony in centric and eccentric positions will follow.

(2) The restored teeth and pontics should simulate in feel and function those of natural teeth to enable the periodontal tissues to be stimulated. Deep cusp inclines should be avoided, and narrow pontics (bucco-lingually) are advised.

(3) The bridge should be constructed so that it can easily be cleaned by the swish of water. Contact points should be soldered to allow for continued stimulation of the interdental tissues.

(4) Multiple abutments are advocated where it is necessary to stabilize

a loose tooth.

(5) We have found that an all fixed bridge is superior to a fixed moveable as all parts are stabilized and function by occlusal harmony with opposing teeth. Bone and pericementum react well under bridges of this type.

(6) Cantilever bridges in time cause loosening of the abutment teeth and prepare the way for food impaction against the adjoining teeth. We do not advocate lug rests against the teeth, preferring two fixed abutments wherever possible.

THE QUALIFIED ASSISTANT

Condensed from Editorial in F. Review of Chicago D. Soc., Feb. 15, 1952

The greatest surgeon may become a blundering sophomore without an able assistant. The All-American halfback may lose yardage each time he carries the ball, without assistance in the form of blockers. The nation's airlines and railroads are less efficient when there is a lack of harmony between pilot and co-pilot, and between engineer and fireman. The finest surgical assistant, the blocking half-back, the co-pilot and the engineer did not achieve their most valuable positions without considerable formal training, as well as practical experience.

We in dentistry have performed our art and rendered our service while working alone, much like our predecessor the barber. The specialized health profession of dentistry, like the specialized health profession of surgery, has made great advances since the days of the barber or the days of the skull-borer. The nursing profession has done much to improve upon the initial doctrines set forth by Florence Nightingale, to be of greater assistance to the patients and the physicians of medicine and surgery. The physicians of dentistry up until recently had to rely upon young, unskilled but willing girls to serve them and their patients.

The training received by these dental assistants was usually given by the individual dentist, and at the end of

a busy day when both the teacher and the pupil were too tired and irritable to do their best. This practical experience was better than none at all, but there was a lack of uniformity which could only be gained through some type of organized formal training.

We must concede the fact that we have a real need for well-trained dental assistants. We must also be realistic by recognizing the fact that most young women, expressing an interest in the field of dental assisting, do not intend to make it their life-long work. They are apt to shy away from an expensive, lengthy, didactic, and often ethereal curriculum. It behooves us to help our cause by giving assistance to those who have a desire to be of greater service to our profession and our patients.

In the year 1951 the Chicago Dental Society sponsored their first formal course of training for dental assistants. On February 5 twenty-four girls received an emblem of qualification and National Certification. These girls not only completed 104 hours of didactic training, but also successfully passed a practical and written examination which carried as much anxiety for them as our State Board Examination did for us. This laudable accomplishment is a marvellous step in the right direction.

GOLDEN JUBILEE PROGRAM

CANADIAN DENTAL ASSOCIATION

in co-operation with

BRITISH COLUMBIA DENTAL ASSOCIATION

SUNDAY JUNE 15

- A. M.** 2:00 REGISTRATION — SIGHT-SEEING
9:00 EVENING MUSICAL—Vancouver Art Gallery Auditorium

MONDAY JUNE 16

- A. M.** 8:00 REGISTRATION
9:30 OPENING CEREMONIES
10:30 "THE SCIENCE AND ART OF DENTAL CASTING"
George M. Hollenback, D.D.S., M.S.D., F.A.C.D., Sherman Oaks, Cal.
- P. M.** 12:00 CANADIAN DENTAL ASSOCIATION LUNCHEON
SPEAKER AND ANNUAL MEETING
2:30 "THE ROLE OF FLUORINE IN DENTAL CARIES CONTROL"
Philip Jay, D.D.S., M.S., Sc. D., Ann Arbor, Mich.
3:30 "ESTHETIC DENTURES AND THEIR PHONETIC VALUES"
Earl Pound, D.D.S., Los Angeles, Cal.
5:00 COLLEGE OF DENTAL SURGEONS OF B.C.—ANNUAL MEETING
7:00 HOSPITALITY NIGHT
7:10 VISIT THE EXHIBITS
8:00 PUBLIC MEETING
This meeting is being arranged primarily for the benefit of the public
"PRESENT STATUS OF DENTAL CARIES CONTROL MEASURES"
Philip Jay, D.D.S., M.S., Sc.D., Ann Arbor, Mich. School of Dentistry, University of Michigan

TUESDAY JUNE 17

- A. M.** 9-00-12:00 GROUP CLINICS
- "DIETARY CONTROL OF DENTAL CARIES"
Philip Jay, D.D.S., M.S., Sc.D., F.A.C.D., School of Dentistry, University of Michigan
 - "METHODS FOR THE REDUCTION OF PERIODONTAL POCKETS"
W. G. McIntosh, D.D.S., F.A.C.D., Toronto, Ont.
 - "THE PLACE OF AMALGAM IN OPERATIVE DENTISTRY"
George M. Hollenback, D.D.S., M.S.D., F.A.C.D., Sherman Oaks, Cal.
 - "GOLD INLAYS"
W. H. Gyllenberg, D.M.D., F.A.C.D., Longview, Wash.
 - "PRESENT STATUS OF CHEMICAL STERILIZATION AND DISINFECTION"
Marshall L. Snider, Ph. D., University of Oregon Dental School
 - "RESTORATION OF A BROKEN-DOWN VITAL POSTERIOR TOOTH FOR A FIXED BRIDGE ABUTMENT"
John Kuratli, D.M.D., F.I.C.D., F.A.C.D., Portland, Ore.
 - "OPERATIVE PROCEDURE FOR THE FULL PORCELAIN VENEER CROWN"
W. H. Hagen, D.D.S., Seattle, Wash.
 - "ADEQUATE AMALGAM PROCEDURE"
F. L. Jacobson, D.M.D., School of Dentistry, University of Washington
 - "FULL CAST CROWN"
A. G. Schultz, D.M.D., Seattle, Wash.
 - "FASHIONING AND TINTING ESTHETIC DENTURES"
Earl Pound, D.D.S., Los Angeles, Cal.
 - "IMMEDIATE ROOT RESECTION"
I. Wolch, D.D.S., Winnipeg, Man.
 - "THE MASTICATORY APPARATUS AND DENTURES IN FUNCTION"
B. Jankelson, D.M.D., Seattle, Wash.
 - "ORTHODONTICS"
R. R. McIntyre, D.D.S., F.I.C.D., Calgary, Alta.
 - "SURGICAL TECHNIQUE FOR THE PROGNATHIC REDUCTION OF THE MANDIBLE"
H. E. Simmons, D.M.D., F.I.C.D., Vancouver, B.C.
 - "THE USE OF ACRYLICS FOR THE CEMENTATION OF INLAYS"
K. N. Morrison, D.D.S., School of Dentistry, University of Washington

NOON DINE WHERE YOU WISH. VISIT THE EXHIBITS.

TUESDAY JUNE 17**P.M. 2:00-5:30 GROUP CLINICS**

1. "SOME ASPECTS OF DENTAL DIAGNOSTIC RADIOLOGY"
H. M. Worth, F.R.C.P.(C), M.R.C.S., L.D.S. (ENG), F.F.R., D.M.R.E. (Camb.),
Faculty of Dentistry, University of Toronto
2. "ORAL SURGERY FOR THE GENERAL DENTIST"
Roy F. West, D.M.D., F.I.C.D., Seattle, Wash.

2:00-5:30 CHAIR CLINICS**GOLD FOIL RESTORATIONS**

- CLASS II—G. D. Stibbs, B.Sc., D.M.D., F.A.C.D., Vancouver Ferrier Study Club
 CLASS V—K. A. Oviatt, B.Sc., D.M.D., Vancouver Ferrier Study Club
 CLASS III—R. E. Hampson, D.M.D., F.A.C.D., Seattle Dental Study Club
 CLASS V—L. W. Beamish, B.A., D.M.D., Inter-City Gold Foil Study Club

GOLD INLAY RESTORATION

W. K. Sproule, D.M.D., F.A.C.D., Vancouver, B.C.

PORCELAIN JACKET CROWN

O. A. Anderson, D.M.D., F.A.C.D., Seattle, Wash.

AMALGAM RESTORATION

CLASS II R. L. Scharff, D.D.S., Vancouver, B.C.

RUBBER DAM, CLAMPS AND SEPARATORS

N. C. Ferguson, D.M.D., New Westminster, B.C.

PEDODONTICS—Vancouver Pedodontia Study Club**2:00 RUBBER DAM APPLICATION**

G. M. Jinks, D.D.S.,—W. G. Hastings, D.D.S.—J. Rife, D.D.S.

2:30 PULPOTOMY

M. J. Waterman, B.Sc., D.D.S.—R. J. Dent, D.M.D.,—M. Nacht, D.D.S.

3:30 CLASS II AMALGAM—PRIMARY MOLAR

L. Lind, D.D.S.—O. F. Wright, D.D.S.—M. M. Mickelson, B.Sc., D.D.S.

2:00-5:30 TABLE CLINICS

1. "DENTAL ANATOMY AND MORPHOLOGY"
F. H. Pratt, D.M.D., F.A.C.D., and Mr. Charles Schroeter, School of Dentistry
University of Washington
2. "FRACTURES OF THE JAWS"
Douglas Tanner, M.B.E., D.D.S., B.Sc. (DENT), F.I.C.D., Toronto, Ont.
3. "PORCELAIN INLAYS"
J. C. Bartels, D.M.D., F.A.C.D., Portland, Ore.
4. "COMPLETE DENTURE CONSTRUCTION" (A Progressive Clinic)
Portland Prosthetic Study and Research Club
5. "GOLD FOIL RESTORATIONS"
Alex Jeffries, D.M.D., F.A.C.D., Seattle, Wash.
6. "CAVITY PREPARATION"
A. Ian Hamilton, D.D.S., School of Dentistry, University of Washington
7. "CROWN AND BRIDGE"
W. John Sproule, D.D.S., School of Dentistry, University of Washington
8. "PORCELAIN JACKET CROWN"
G. A. Chudleigh, D.D.S., Halifax, Nova Scotia
9. "THE RESULTS OF ORTHODONTIC TREATMENT"
E. Allen Bishop, D.M.D., Seattle, Wash.
10. "COMPLETED ORTHODONTIC CASES"
Wm. P. McGovern, D.M.D., Tacoma, Wash.
11. "AIRDENT"
K. N. Morrison, D.D.S., School of Dentistry, University of Washington
12. "ENDODONTICS"
Vancouver Endodontia Study Club

7:00 PRESIDENT'S DINNER AND DANCE—THE COMMODORE—DRESS INFORMAL

WEDNESDAY JUNE 18**A.M. 9:00:12:00 GROUP CLINICS**

1. "CROWN AND BRIDGE"
John Kuratli, D.M.D., F.I.C.D., F.A.C.D., Portland, Ore.
2. "RESTORATIVE DENTISTRY"
G. D. Stibbs, B.Sc., D.M.D., F.A.C.D., School of Dentistry, University of Washington
3. "SOME ASPECTS OF DENTAL DIAGNOSTIC RADIOLOGY"
H. M. Worth, F.R.C.D. (C), M.R.C.S., L.D.S. (ENG), F.F.R., D.M.R.E. (CAMP),
Faculty of Dentistry, University of Toronto
4. "GOLD INLAYS"
W. H. Gyllenberg, D.M.D., F.A.C.D., Longview, Wash.
5. "THREE-QUARTER CROWN"
A. G. Schultz, D.M.D., Seattle, Wash.
6. "AN EVALUATION OF THE USE OF PORCELAIN AND ACRYLICS"
W. H. Hagen, D.D.S., Seattle, Wash.
7. "A SIMPLIFIED TECHNIQUE FOR THE EXTRACTION OF THE IMPACTED THIRD MOLAR"
H. E. Simmons, D.M.D., F.I.C.D., Vancouver, B.C.
8. "SUCCESS IN ROOT CANAL THERAPY"
John Ingle, D.D.S., M.S.D., School of Dentistry, University of Washington
9. "THE PRESENT STATUS OF CHEMICAL STERILIZATION AND DISINFECTION"
M. L. Snider, Ph.D., University of Oregon Dental School

10. "A RAPID METHOD OF SETTING TEETH IN DENTURE CONSTRUCTION"
B. Jankelson, D.M.D., Seattle, Wash.
11. "PATHOLOGY OF ABNORMAL ODONTOGENIC PROCESSES"
A. G. Racey, D.D.S., F.A.C.D., Montreal, P.Q.
12. "ORTHODONTICS"
R. R. McIntyre, D.D.S., F.I.C.D., Calgary, Alta.

12:00 BRITISH COLUMBIA DENTAL ASSOCIATION—LUNCHEON AND ANNUAL MEETING
VISIT THE EXHIBITS

P.M. 2:00-5:30 CHAIR CLINICS

GOLD FOIL RESTORATIONS

- CLASS V—R. H. Colbourne, D.M.D., Vancouver Ferrier Study Club
- CLASS III—K. N. Morrison, D.D.S., Inter-City Gold Foil Study Club
- CLASS II—R. E. Hampson, D.M.D., F.A.C.D., Seattle Dental Study Club
- CLASS V—J. M. Wark, D.M.D., Inter-City Gold Foil Study Club

PORCELAIN JACKET CROWN

- O. A. Anderson, D.M.D., F.A.C.D., Seattle, Wash.

AMALGAM RESTORATION

- A. Ian Hamilton, D.D.S., School of Dentistry, University of Washington

RUBBER DAM APPLICATION

- J. C. Foote, D.D.S., Victoria, B.C.

WEDNESDAY JUNE 18

P.M. 2:00-5:30 TABLE CLINICS

1. "DENTAL ANATOMY AND MORPHOLOGY"
F. H. Pratt, D.M.D., F.A.C.D., and Mr. Charles Schroeter, School of Dentistry, University of Washington.
2. "DENTAL CASTINGS, LARGE AND SMALL"
G. M. Hollenback, D.D.S., M.S.D., F.A.C.D., Sherman Oaks, Cal.
3. "ROENTGENOLOGICAL TECHNIQUE—LONG CONE vs. SHORT CONE"
F. L. Jacobson, D.M.D., School of Dentistry, University of Washington
4. "ESSENTIALS OF GOLD FOIL—INSTRUMENTS, CAVITY PREPARATION, ETC."
Vancouver Ferrier Study Club
5. "PORCELAIN JACKET CROWNS"
J. C. Bartels, D.M.D., F.A.C.D., Portland, Ore.
6. "HYDROCOLLOID INDIRECT TECHNIC FOR INLAYS"
John Gansner, D.D.S., Vancouver, B.C.
7. "LOCAL ANAESTHESIA"
Roy F. West, D.M.D., F.I.C.D., Seattle, Wash.
8. "BLEACHING DISCOLOURED PULPLESS TEETH"
J. I. Ingle, D.D.S., M.S.D., School of Dentistry, University of Washington
9. "OCCIPITAL ANCHORAGE"
C. E. Craig, D.D.S., M.S., Vancouver, B.C.
10. "A SIMPLE ORTHODONTIC APPLIANCE FOR THE GENERAL PRACTITIONER"
R. H. Crossley, D.D.S., Vancouver, B.C.
11. "INVISIBLE GOLD FOIL RESTORATIONS"
Alex Jeffries, D.M.D., F.A.C.D., Seattle, Wash.
12. "ENDODONTICS"
Vancouver Endodontia Study Club
13. "CROWN AND BRIDGE"
W. John Sproule, D.D.S., School of Dentistry, University of Washington
14. "PEDODONTICS"—Vancouver Pedodontia Study Club
 - A. MODERN MANAGEMENT OF CLEFT PALATE PATIENTS
R. J. O'Neil, D.M.D., M.P.H.
 - B. TREATMENT OF FRACTURED ANTERIOR TEETH
J. Vance-Touhey, D.M.D.
 - C. FLUORIDATION
R. C. Tully, D.D.S.—J. A. Sampson, D.D.S.
 - D. PREVENTIVE ORTHODONTIA AND SPACE MAINTENANCE
R. Cline, B.A., D.D.S.—D. B. McDonald, D.D.S.
 - E. NUTRITION—OFFICE ROUTINE FOR CARIES CONTROL
R. I. Yorsh, B.A., D.D.S.
 - F. TREATMENT PLANNING AND PATIENT MANAGEMENT FOR THE GENERAL PRACTITIONER
A. A. Fraser, D.D.S.
15. "CONTROL OF PAIN AND IRRITATION IN OPERATIVE PROCEDURES"
Hector R. MacLean, D.D.S., F.A.C.D. Faculty of Dentistry, University of Alberta
16. "INTERCEPTAL TRIMMING AND PREPARATION OF THE MOUTH FOR DENTURES"
J. A. Barber, D.M.D., Chilliwack, B.C.

NOTE (a) Please take note of Program of Ladies' Entertainment which has already been publicized.

(b) During the course of the Convention there will be an Art Exhibit, Visual Education program as well as Exhibits under the auspices of the Department of National Health and Welfare and the Department of Health and Welfare of the Province of British Columbia.

(c) The program as presented is subject to additions and minor corrections.

(d) The Commercial Exhibits will be open during the course of the Convention from 9:00 A.M.

PENSION TRUST ASSURANCE PLAN—Arrangements have been completed for Mr. Williamson, Administrator of the Plan, to be in attendance at the Annual Meeting in Vancouver. Members attending will have opportunity of discussing detailed arrangements on a personal basis.

ANNOUNCEMENTS

● **THE BOARD OF GOVERNORS' MEETING** of the Canadian Dental Association will be held at the Hotel Vancouver June 11-14. These meetings are open to all members of the C.D.A. and those holding official positions in any Canadian dental organization are especially urged to be present.

● **TRAVELLING RATES TO THE JUBILEE CONVENTION** in Vancouver. Authorized dates for starting the trip are as follows:—From stations on Western lines (West of Fort William and Armstrong) starting dates are June 7-13. From stations east of those points, with the exception of Newfoundland, starting dates are June 4-10, and from Newfoundland June 1-7. Identity certificates may be had from the Secretary of the C.D.A. at 234 St. George Street, Toronto and are necessary in order to secure reduced rates.

● **REGISTRATION FEE FOR GOLDEN JUBILEE MEETING** is \$15.00 which may be sent to Dr. Chas. M. Whitworth, 218 Medical Dental Building, Vancouver, with request for hotel reservations.

● **EASTERN ONTARIO DENTAL ASSOCIATION CONVENTION** will be held in Chateau Laurier Hotel, Ottawa, September 21, 22 and 23.

● **28TH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** will be held in Montreal **OCTOBER 22-24, 1952.**

● **AMERICAN DENTAL ASSOCIATION** Convention, St. Louis, Mo., September 8-11, 1952.

● **ANNUAL MEETING OF THE AMERICAN ACADEMY OF PERIODONTOLOGY** at Statler Hotel, St. Louis, Mo., Sept. 4-6, 1952.

● **XI INTERNATIONAL DENTAL CONGRESS**, London, England, July 19-26. This promises to be the greatest Dental Congress ever held in Great Britain.

ANNUAL CONVENTION OF THE MARITIME DENTAL ASSOCIATION

under the auspices of

THE NEW BRUNSWICK DENTAL SOCIETY

Lord Beaverbrook Hotel, Fredericton

JULY 7th, 8th, 9th

GENERAL CHAIRMAN

Dr. B. R. Ross, Fredericton

PRESIDENT

Dr. R. S. Langstroth, Fredericton

Three full days with outstanding clinicians, lecturers, essayists—lunches, dinners, dances and parties. The happiest and most educational meeting you can attend in '52. The ladies will love it! Why not make this the starting point for your Maritime tour. We will gladly provide information.

Two and a half hours from Montreal by T.C.A.

THE FRIENDLY MEETING OF GENERAL PRACTITIONERS FOR 1952.

ENTERTAINMENT — EDUCATION — HOSPITALITY — EXHIBITS.

All correspondence, including reservations, to Box 524, Fredericton, N. B.



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Editorial

CON AMORE

DURING the American Civil War a captain of a southern river boat was offered five hundred dollars by a certain cotton trader to carry some contraband cotton up north for him. The answer was an emphatic "No." The trader said, "I will give you one thousand dollars" and again the answer was "No." "I'll give you three thousand dollars," said the trader, upon which the captain drew his pistol and said to the trader, "You get off this boat. You are getting too close to my price."

In the practice of dentistry I wonder sometimes if we draw our pistol soon enough, saying to the tempter, "Get out of my life for you are getting too close to my price."

At the moment I am not thinking so much of the very objectionable things such as fee-splitting; of extracting teeth which should be saved; of patronizing an unethical dental laboratory because his charges are lower; of sending a patient direct to the laboratory for a repair, all of which adds up to difficult dental-laboratory relationships, and many other such problems. Rather, I am thinking of the ideals which should be before every dentist's eye continually—how he can raise his sights so that he can do more dentistry in less time, better dentistry as the years go by and have more satisfaction from his work. This can only be accomplished by study, by post-graduate courses, and by attending conventions.

June 15-18 will be days long to be remembered by the dentists of Canada as they meet in Vancouver to celebrate the GOLDEN JUBILEE OF THE CANADIAN DENTAL ASSOCIATION. When the tempter comes pointing out that you can save a few dollars by staying home, draw your pistol, as did the ship's captain, and say, "I am going to that Convention. I'll be able to tell my children and grandchildren that I attended the Golden Jubilee Meeting of the Canadian Dental Association."

We shall meet to work, to study, to play in British Columbia's wonderful resorts, to enjoy social intercourse with old friends and new friends, and find solutions to the many problems which have been accumulating during the past months as dentistry has forged ahead.

A trip to B.C. at this time should also be a vacation of more than usual interest. Someone has written "Vacations give us perspective, enable us to stand apart and look at ourselves in a changed light and under changed conditions. Cobwebs of constant application are swept away and evaluation of the past and preparation for the future can be better appreciated." Vacations are wonderful and help to emphasize daily blessings which might otherwise pass unheeded.

Success in the practice of dentistry is obtained very much like character is built—by continual study, by building step by step, by consulting with others who have already reached the goal in some particular field. Henry Ward Beecher said, "Character is built as cathedrals are built—the part nearest the ground finished, but the part which soars to heaven, the turrets and the spires, forever incomplete." As dentists, we can never hope for perfection but we can climb higher and higher by attending such functions as the one being planned for Vancouver next month.

I recall the story of a group of Italian painters who formed themselves into a guild and adopted the motto "*Con Amore*" meaning "With Love". They painted for the love of painting and painted with their eyes fixed on the stars and people marvelled at the finish and the glory of their masterpieces. Could we as dentists not take such a motto to heart and practise dentistry "*Con Amore*?" It will surely help if we attend the Golden Jubilee Meeting June 15-18. So, let us head for Vancouver and let us go with enthusiasm. "Nothing is so contagious as enthusiasm. It is the real allegory of the tale of Orpheus. It moves stones, it charms brutes. Enthusiasm is the genius of sincerity and truth accomplishes no victories without it."

M. H. G.

BOOK REVIEW

Table of Food Values Recommended for

Use in Canada by the Nutrition Division, Department of National Health and Welfare, Ottawa, Canada. Second edition 1951, under the authority of the Hon. Paul Martin, Minister of National Health and Welfare. Compiled by Dr. L. B. Pett, Chief, Nutrition Division, Dept. of National Health and Welfare, Ottawa. Copies may be obtained at \$1.00 each from the Department of Public Printing and Stationery, Ottawa, Canada.

In this book calorie values have been recalculated according to factors contained in the report "Energy-Yielding Components of Food and Computation of Calorie Values" by the Committee on Calorie Conversion and Food Composition Tables, convened by the Nutrition Division of the Food and Agriculture Organiza-

tion of the United Nations, 1947. Some corrections, additions and deletions have been made in this second edition. Permission was obtained to use the compilation recently issued as United States Department of Agriculture Handbook No. 8, Composition of Foods—Raw, Processed, Prepared. All of our food-stuffs are analyzed as to waste, moisture content, description of food and information about portions, also the number of calories and the quantity of protein, fat, carbohydrate, calcium, phosphorus, iron, vitamin A, thiamin, riboflavin, niacin and vitamin C in each variety of food, together with references.

This is a very complete treatise on food values and deserves the attention of every dentist who makes any pretense of practising dental medicine.

M.H.G.

"A man is worth what he gives."

CORRESPONDENCE

AN INVITATION

Dr. J. Menzies Campbell, 14 Buckingham Terrace, Glasgow, W. 2. writes:—

It is to be hoped that many Canadian dentists, attending the International Dental Congress in London, will be able to extend their travel to Scotland.

May I say that it would afford me very great pleasure to show them my collection of pre-1850 dental books, advertisements, prints, instruments, etc., now arranged in cases and comprehensively catalogued.

I have unfading happy memories of my year (1911-12) in Toronto, and of the great kindnesses which were then so freely extended to me by all. I am justifiably proud to be able to say that three Deans—A. E. Webster, A. D. A. Mason and R. G. Ellis—have visited me here.

My telephone number is Glasgow Western 2640.

AMMONIATED DENTIFRICES

To the Editor:

In the February 1952 issue of the Journal you published an abstract of an article by Drs. Davies & King which appeared in the Journal of Dental Research (30:645, 1951). With reference to this abstract it would seem that some further clarifying observations should be made.

In view of the different clinical results reported with the low and high urea ammoniated dentifrices, "Ammoniateds" should not be treated as a single group. Three independent clinical papers have appeared in the literature reporting reduction in caries experience ranging from 37 to 60% in groups using a high-urea ammoniated dentifrice (Ammi-dent). These reports were by Henschel &

Lieber of a four year study (Oral Surgery, Oral Medicine, Oral Pathology. 5:155, 1952); Lefkowitz and Venti an interim 18 month report of a three year study (ibid 4:1576, 1951) and Gale an interim 12 month report of a 2 year study (Dental Record 1:15, 1951) and Gale's final report (ibid Oct. 1951).

Thus while the work of Drs. Davies and King appears to confirm the report of Kerr and Kesel, it should be pointed out that this clinical study was on the 5% diammonium phosphate-3% urea, or low-urea ammoniated dentifrice formula. The three reports cited above, wherein evidence of caries incidence reduction of from 37 to 60% is reported, were on the 5% D.A.P.-22.5% urea powder or 3% D.A.P.-13% urea paste, which are the so-called high urea ammoniated dentifrices.

With particular reference to the article by Drs. Davies and King, it should also be pointed out that the study was conducted from March 1950, a period of 8 or 9 months of continuous dentifrice use. The experience of several clinicians interested in caries research indicates that this is far too short a time for an evaluation of cariostatic agents.

We feel that the above points should be brought to the attention of those interested for a clearer understanding of the role of "ammoniated" dentifrices.

Signed, Arnold J. Singer, Ph.D.,
Research and Development,
Amm-i-dent Inc.

Editor's Note: *The above letter is being published because we wish to be fair to all our advertisers. However, we have no reason to change our opinion with regard to the present status of Ammoniated Dentifrices as expressed in our editorial of May 1951. So long as manufacturers circularize the profession with the results of very doubtful research projects we feel justified in publishing the results of other research projects from which different conclusions are drawn.*

"To give a lustrous polish to acrylic work, use a little rouge on clean chamois wheel or clean cloth buffer."

"To remove tripoli or rouge from gold work after final polish wipe off with a pellet of cotton saturated with acetone."

*He who is plenteously provided for from within needs but little from without.—
Goethe*

ROYAL CANADIAN DENTAL CORPS NEWS

The Director General Dental Services, Brigadier E. M. Wansbrough, O.B.E., M.M., E.D., recently visited Japan and Korea where he inspected No. 25 Canadian Field Dental Unit. The impression gained is that this unit is maintaining in a most exemplary manner the highest tradition of the R.C.D.C. Officers and men almost without exception are interested in one thing only and that is to give the maximum dental service of the highest standard to members of the Canadian Forces serving in this theatre.

Captain G. J. D. Belanger has been appointed in the rank of Captain to the R.C.D.C. and posted to the R.C.A.F. Station at St. Jean, Quebec. Captain Belanger is a graduate of the University of Montreal '45 and practised in Quebec City prior to his appointment to the Corps.

Captains J. W. Turner, E. D. Fraser, G. MacDougall, G. L. Finkbeiner, L. G. Craigie and C.G.B. Grant have recently been promoted to the rank of Major.

Major Turner, 30, was born in Toronto. He attended Niagara Falls Collegiate and the University of Toronto graduating in dentistry in 1945. Major Turner was appointed to the Corps in 1945 and has continued in the service. He is stationed at the R.C.A.F. Station, St. Jean, Quebec.

Major Fraser, 31, was born in Springhill, Nova Scotia. On graduating from Dalhousie University in 1945 he was appointed to the Corps. He retired from the service with the rank of Captain, establishing a practice at Port Colborne, Ontario. He was re-appointed to the R.C.D.C. in 1947, and is now stationed at the R.C.A.F. Station, Trenton, Ontario.

Major MacDougall, 30, was born in Sherbrooke, Quebec. He obtained his B.Sc. from Bishop's College '42 and his D.D.S. from McGill University '45. Following graduation he was appointed to the Corps. Major MacDougall has been

stationed at Ottawa and Fort Churchill and is now serving with the 27th Canadian Field Dental Unit in Northwest Europe.

Major Finkbeiner, 42, was born in Milverton, Ontario, and attended High School at Listowel, Ontario. He obtained his D.D.S. from the Marquette University Dental School, Milwaukee, Wisconsin, U.S.A., in 1935, and then attended the University of Toronto, graduating in dentistry in 1936. Dr. Finkbeiner was practising in Listowel when appointed to the Corps in 1940. He served in Canada, the United Kingdom and Northwest Europe, attaining the rank of Major. Major Finkbeiner retired in 1945, resuming his practice in Listowel. He was re-appointed to the R.C.D.C. in 1948 and is now stationed at H.M.S.C. Shearwater, Dartmouth, N.S.

Major Craigie, 34, was born in Kam-sack, Sask. After spending a year in Arts at the University of Saskatchewan he attended the University of Toronto, graduating in dentistry in 1943. He was appointed to the Corps in 1943 and retired with the rank of Captain in 1946 to establish a practice in Moose Jaw, Sask. He was re-appointed to the R.C.D.C. in 1948 and is at present serving with the 27th Canadian Field Dental Unit in Northwest Europe.

Major Grant, 37, was born in Toronto. He attended High School at Durham, Ontario, and the University of Toronto, graduating in dentistry in 1940. Dr. Grant practised in St. Thomas, Ontario, for several months before being appointed to the Corps. He served in Canada, the United Kingdom, Central Mediterranean Area and Continental Europe and was promoted Major in 1944. Major Grant retired in 1945 to take over his father's practice in Durham, Ontario. He was re-appointed in the rank of Captain to the R.C.D.C. in 1947. Major Grant is at present serving with the R.C.A.F. at Clinton, Ontario.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

Annual Meeting — Vancouver:— Advance registrations indicate a large attendance at the Annual Convention — June 15-18 at Vancouver. The recently distributed brochure sets forth a well-balanced program. Members intending to attend should not delay making reservations. Hotel reservations can be made by applying to: Dr. C. M. Whitworth, 218 Medical-Dental Bldg., Vancouver, B.C. The registration fee of \$15.00 must accompany application for hotel registra-

tion. Special train arrangements have been made leaving Toronto, Montreal and Ottawa on the evening of Friday, June 6. Application for train reservation may be made by writing C.D.A. headquarters or through your local C.P.R. agents. Agents are informed respecting special train provisions. Certificate for reduced fares can be obtained by writing The Secretary, 234 St. George Street, Toronto.

The C.D.A. Pension Assurance Trust Plan:—At the last Annual Meeting a pension-assurance trust plan was endorsed. Since that time a considerable number of technical matters have delayed the sending out of information to C.D.A. members. It can now be stated that full information will be in the hands of each member by May 1 next.

Security has become a word of many meanings during recent years. Dependence upon individual or public security is a vital question today. In the opinion of the officials of the Association, the dentist is an individualist who would choose to provide his own competency rather than place his trust in other possible sources. After several years' effort in investigating available arrangements for the assistance of dentists the present plan was adopted. Previous to approval, the Association secured advice from all possible sources respecting the soundness of the plan and including the testing of the rate structure by recognized independent actuaries. As the details of the plan become available, individual members will have opportunity to evaluate its merits.

Canadian Dental Research Studentships and National Research Council Fellowships complement one another:—

"1. The N.R.C. fellowship is intended to help the student who has already had some research experience and at least one year's post-graduate training.

2. It is further intended that the student learn the techniques of research by actually taking part in a research project rather than that he receive training in the basic sciences in preparation for undertaking a project.

3. These N.R.C. fellowships were available for two years before an application was received. The explanation apparently is that students did not have the necessary qualifications.

4 Since the N.R.C. fellowships are planned to help the experienced research student undertake advanced projects and study and the C.D.A. studentships are planned to help suitable students acquire a post-graduate training in the basic sciences and research procedures—it seems that one program complements the other. The training provided under the C.D.A. studentship helps make the student eligible for the N.R.C. fellowships."

Pamphlet — A Guide to Professional Conduct:—This pamphlet has been distributed to all English-speaking members of the Association. The edition in French will follow shortly. Already much favourable comment has been received.

Credit for the preparation of this statement belongs to the C.D.A. Committee on Ethics. The statement was approved at the last Annual Meeting and represents the policy of the Association upon professional relations. Additional copies may be obtained by writing The Secretary.

Canadian Dentists Participate in London Congress, July 1952:—The tentative program for the XIth International Dental Congress to be held in London, England, July 16-19, has now been issued. Canadian dentists appearing on the program are: Dr. Stewart A. MacGregor (Children's Dentistry); Dr. J. H. Johnson, (Oral Surgery); Dr. R. J. Godfrey (Partial Dentures) and Dr. H. J. Merkeley, (Dentures). Approximately 50 Canadian dentists have completed arrangements to attend the Congress. Registration should be completed before leaving Canada. Registration forms are available at C.D.A. headquarters.

British Mission on Fluoridation:—The British Government has sent a commission of four experts to study the fluoridation of water supplies in United States and Canada. Professor Stones, a well-known research worker in Great Britain, who is also Dean of the Dental School at Liverpool University, will visit Toronto during the last week in March. During his visit Professor Stones will meet with the members of the C.D.A. Research Committee and interview various authorities including a trip to Brantford where the study of fluoridation is now in progress.

Graduates in Dental Public Health:—In the recently published report of the School of Hygiene, University of Toronto, 20 graduate dentists are listed as having received the Diploma in Public Health. Seventeen of these graduates are actively engaged in dental public health services at the present time. The distribution of these graduates is as follows:

- 2 are employed by the Federal Government;
- 7 are employed by Provincial Governments;
- 7 are employed in Health Units or Areas; and
- 1 is a member of the teaching staff in a dental school.

Items of Interest:—**Dr. Robert E. Moyers**, Professor of Orthodontics, University of Toronto, was one of several participants in a panel discussion on public health aspects of orthodontics which was held at Washington on March 10-11 last. The meeting was under the auspices of

the Children's Bureau of the U.S. Federal Security Agency.

The Council on Dental Education of the American Dental Association reports a 57.6 per cent increase in total number of undergraduate dental students between the years 1940 and 1952. However, it is further stated that the population increase has been greater than the proportionate increase of dentists and consequently the ratio of dentists to population is being lowered.

The Dr. D. J. Brass Vocational School was opened in Yorkton, Sask., recently. Dr. Brass died in January, 1950. He had taken an active interest in education and municipal affairs. For a considerable number of years he was a member of the Council of Dental Surgeons for the Province of Saskatchewan.

Guaranteeing of Denture Materials — Statement by Committee on Ethics: The following letter in part, together with a photo of the guarantee was received at C.D.A. headquarters from a practising dentist and referred to the Committee on Ethics for a ruling.

"A patient called on me yesterday complaining of irritation due to dentures that had just been made elsewhere. I examined the mouth and advised the pa-

tient that I would have to relieve the pressure on the irritated area. The patient replied 'but doctor, you shouldn't have to touch those plates, they are guaranteed.' I smiled and attempted to explain that a dentist could not guarantee his work. The patient then produced a very official looking document which says that the dentures were guaranteed against fracture for two years. This was prepared by an Acrylic Manufacturer, signed by a dental laboratory, and a dentist.

I have repeated this story at length because I wish to show the impression this patient had that his dentures were 'guaranteed'."

Ruling: Your Committee on Ethics is aware that this practice is occurring in various widely separated parts of the country and would remind you that such a practice is not only contrary to the ethical standards of the provincial legal bodies but also to the principles of the Canadian Dental Association. Such practices are a definite attempt at misrepresentation of the facts, and ought not to be countenanced by members of the dental profession. Moreover, this issuance of a guarantee carries the dangerous implications of a transfer of status from that of a profession to a business.

NEWS FROM THE PROVINCES

NEWFOUNDLAND

The Annual Meeting of the **Newfoundland Dental Association** was held at St. John's on Feb. 16. The President, Dr. A. B. Kennedy, gave a hearty welcome to the out-of-town members present who were: Dr. H. M. Brown, Bonavista; Dr. H. F. Giovannetti, Bell Island; Dr. W. L. Goodwin, Harbour Grace; Dr. F. A. Janes, Corner Brook; and Dr. W. C. King, Corner Brook.

Dr. E. P. Kavanagh presented two reports. The first was on the activities of the Newfoundland Dental Board for 1951, which showed that many problems had arisen during the year and were successfully dealt with, and that much time and effort had been given by the members of the board. The second report was on the Annual Meeting of the C.D.A. held at Ottawa in Sept. The main points brought out in this report were:

1. National examining board.
2. Survey of the five Canadian dental schools by the Council on Dental Education.
3. Fiftieth anniversary of the founding of the C.D.A. occurring this year.
4. Pension insurance trust plan of the C.D.A.
5. Resignation of Dr. E. P. Kavanagh from the Board of Governors.

There was considerable discussion on both reports which proved to be both informative and interesting. The resignation of Dr. Kavanagh from the Board of Governors caused much regret. He had represented the Association for the past two years and carried out his duties with energy and vision. The meeting expressed its gratitude to Dr. Kavanagh for work well done in the interests of dentistry in Newfoundland.

Dr. W. L. Goodwin of Harbour Grace was elected representative to the C.D.A. Board of Governors, succeeding Dr. Kavanagh. Dr. W. C. King, of Corner Brook, was elected as alternate.

The election of officers for 1952 resulted as follows: President, Dr. W. L. Goodwin, Harbour Grace; 1st Vice-Pres., Dr. F. A. Janes, Corner Brook; 2nd Vice-Pres., Dr. G. E. Mallam, St. John's; Sec.-Treas., Dr. J. M. Darcy, St. John's.

The new president, Dr. W. L. Goodwin, expressed his appreciation for the honour bestowed on him and outlined a tentative program for the coming year.

J. M. Darcy

BRITISH COLUMBIA

Evidence of activity on the part of civil defence officials was apparent at a recent meeting of the **Victoria and Dis-**

trict Dental Society, when a film on the effects of atomic heat and radiation on the human body was shown. Dr. Gayton, City Health Officer, presented the film and spoke briefly to the meeting.

Dr. A. I. Hamilton, of the staff of the dental department at the University of Washington in Seattle, also addressed the meeting on "Crown and Bridge Technique," using slides to illustrate his subject.

The March meeting of this Society was held on the 17th at the Empress Hotel.

Dr. McGill spoke on the "Aspects of Atomic Destruction—Medically."

Mr. Charles Schroeder, from the University of Washington, gave a talk on "Dental Photography," accompanied by a number of slides. He then showed some personal pictures that have won fame in various photographic exhibitions.

The impressive annual report of the **Department of Health and Welfare** of this Province has just been received. The story of the progress of B.C.'s health programs is well presented, and makes good reading. In particular, we are interested in the report of Dr. Frank McCombie, Director of the Division of Preventive Dentistry.

Of the eighteen local health units, covering the entire Province, seven have now been supplied with dental directors, and are operating at full capacity in that department. These seven units are the Cariboo; North Okanagan; South Okanagan; Upper Fraser Valley; North Fraser Valley; Simon Fraser, and Central Vancouver Island local health units. Together with dental officers of the metropolitan health units, the Province now has twenty-four full-time dentists engaged in the practice of preventive dentistry. The report states that every effort will be made to bring about the appointment of at least eleven more full-time dentists, so that each of the local health units will have at least one dental officer.

The Director acknowledges, with gratitude and appreciation, the most complete co-operation of the Council of the College of Dental Surgeons, and the various committees of the British Columbia Dental Association with his Division.

Various outlying coastal and interior areas which are far removed from ordinary dental services have been visited this year by dentists in private practice, using the splendid transportable dental equipment available on loan from the Division of Preventive Dentistry.

The matter of **Fluoridation of Municipal Water Supplies** is engaging much attention in British Columbia this year.

As was expected, considerable opposition has been raised, based on gross ignorance of the factors involved in the proposed procedure. The question was recently raised, and voted upon in Seattle, Washington, and rejected. The Metropolitan Board of Health in Vancouver has also recently considered the matter, but has decided to postpone action for the present, so that further information and study may be secured and applied to the subject.

The Division of Preventive Dentistry of the Department of Health and Welfare, following a careful review of the question of fluoridation, has issued a new statement on the subject, giving the policy of the Department—as follows:

"In communities where the artificial fluoridation of the public water supplies could be a practical procedure, and the procedure has the full approval of the local health authorities and others responsible for the community health, and in the light of evidence now available, local authorities are now strongly urged and recommended to adopt this procedure, but having first submitted their plans for doing so to this Department for approval."

The Department publication emphatically states that the fluoridation of water supplies must be considered an adjunct to other existing methods of reducing dental caries, and not a procedure to be adopted in lieu thereof.

SASKATCHEWAN

A large attendance of the **Saskatoon Dental Society** listened to the last of the 1951-52 series of telephone broadcasts from the University of Illinois.

A fair representation from the medical profession also attended the meeting and lecture, as our guests.

Dr. Ray Dickson gave a resumé of a course he had taken from Dr. Hermann Becks on "Diet and Nutrition" in Dental Health. This was of interest to the medical members as their co-operation with the dental profession in diet control for children is necessary.

The **Saskatchewan Dental Association** announced that it would bring Dr. Joe Freeman (Oral Surgeon of Winnipeg) to several centres in Saskatchewan for one-day clinics.

L.H.

Three-year-olds to Receive Fluoride Treatment:—The preventive dental service of Weyburn-Estevan Health Region No. 3 is planning to extend its fluoride application program to the three-year-old age groups in the near future, beginning with Weyburn city.

As in the case of the school children now being given fluoride treatment, the

course will consist of four applications at short intervals. Existing dental defects will also receive attention. — Weyburn Review.

MANITOBA

Winnipeg Dental Society:— The old saying "Where Ignorance is Bliss, 'Tis Folly to be Wise" does not apply to every sort of Bliss, certainly not to Dr. Cecil Bliss of Sioux City, Iowa. This is his address if you wish to write to him. You may not find him at home for a few days, but he shows up there every now and then, just to be introduced to his family and the students at the dental school whom he is supposed to teach. Most of the time though he is doing what he did to the Winnipeg Dental Society on the 21st of March, teach them "Practice Management and Patient Relationship" and while doing so make them laugh while learning. The Society had been trying to get him here for three years, but he was booked that far ahead. There are simply not enough days in the year to readily fulfil the demands for his services. So now you know how good he must be. We saw some laugh continuously who seldom let their hair down. Those who are booked three months ahead have a new record to shoot at. The talks which occupied morning and afternoon hours were recorded and will be mailed to all members of the Society.

Dr. Orwell Brown, President of the Society presided at both sessions.

J.F.M.

ONTARIO

The Hamilton Dental Association held its final meeting of the current season on April 10, at Fischer's Hotel. A feature of the meeting was the presentation of Honorary Life Memberships to Dr. Herbert Field, and to the guest speaker of the evening, Dr. Don Gullett, Secretary of the Canadian Dental Association and Reg.-Sec. of the R.C.D.S.

The retiring president, Dr. J. V. O'Shaughnessy, turned the chair over to his successor Dr. Don Moore. Other officers for the coming year include:

Vice-President—Dr. Norman L. Robinson; Secretary—Dr. W. J. Hambley; Treasurer—Dr. G. M. Morrow; Chairman of the Program Committee — Dr. A. H. Leckie; Directors—Dr. Art Poag and Dr. Gordon Jackson.

The membership of the Hamilton Dental Association reached a new high of 120 paid up members. It was unanimously agreed that the past year had been a very successful one, and Dr. O'Shaughnessy was presented with a suitable token of appreciation for his splendid leadership.

M. L. Robinson

New Executive Officers of the Academy of Dentistry:— Immediate Past President, Dr. M. G. Boyes; President, Dr. J. Gordon Chalmers; President-elect, Dr. Elmer Henderson; Secretary, Dr. James W. Smith; Treasurer, Dr. J. Bevan King; Councillors: West—Dr. J. V. Herbert; Downtown — Dr. R. W. Marshall; Central—Dr. F. T. Pearson; East —Dr. William A. Weir; North—Dr. Harvey Milburn.

On March 13 the **Hamilton Dental Association** was addressed by Lester W. Burket, B.A., D.D.S., M.D., Dean of the School of Dentistry of the University of Pennsylvania, on the subject of "Oral Medicine."—Hamilton Spectator.

Class 2 T 7 Dents, University of Toronto is holding its twenty-fifth anniversary party **Monday evening, May 12, beginning 6 p.m.** There's a party for the ladies too—Dinner and Theatre. Dress is informal. Price, all inclusive, \$15 per member.

At the annual dinner of the **Ottawa Dental Society** held March 10 the following officers were elected:—President, Dr. C. E. Woods; Vice-President, Dr. L. R. Slemon; Sec.-Treas., Dr. M. M. Derrick. Directors elected were:—Doctors W. D. Bryce, George Clarke, W. C. G. Collins, J. A. Gauthier, J. C. McCavour, D. A. R. McDougall, Abram Slone, W. A. Armstrong, C. E. Laurin and J. F. French.

The speaker at this dinner was Dr. Stanley Garn, Professor of Anthropology at Harvard University.

This dinner capped "Children's Dental Health Day" in Ottawa when 24 dentists spoke to the children at 33 Ottawa public and separate schools, also the Jewish Parochial School.—Ottawa Evening Journal.

Dr. J. B. Pepper was guest speaker at the February meeting of the **Toronto Study Club of Dental Technicians** which was held at the King Edward Hotel. Dr. Pepper presented an illustrated lecture demonstration on the "Use of Hydrocolloid as used in Partial Dentures, Jacket Crowns and Crown and Bridge Service."

Dr. Pepper is a pioneer in the subject and has done a great deal of research on the application of hydrocolloid to different phases of dentistry. This, plus the fact that he is a very thorough and conscientious technician as well, enabled him to cover the subject fully from the standpoint of the technician. He gave the members many valuable points to help them do a better job in their laboratory service.

The President, Mr. Charles Goodall,

thanked Dr. Pepper on behalf of the Club and presented him with a small token of their appreciation for a very educational evening.

QUEBEC

A careful step by step examination by the general practitioner is the basis of **Interceptive Orthodontics** stated **Dr. Robert E. Moyers** to the members of **The Montreal Dental Club** at its March meeting. R. E. Moyers, D.D.S., B.Sc., Ph.D., Professor and Head of the Department of Orthodontics, Faculty of Dentistry, University of Toronto was at one time a general practitioner and therefore realizes that the toughest problem the general practitioner has to face is one of diagnosis; should he treat? observe? or refer? With these problems in mind, he suggests a step by step examination of every child patient:

1. Look at the soft tissue of the face for evidences of mouth breathing, underdevelopment, chapped areas, etc., and look at the mother . . .

2. Count the teeth. By five years of age, he feels that full mouth x-rays are imperative so that all the teeth may be accounted for.

3. Measure the size of the teeth. "A mouth so large can only hold so many teeth of a certain size." A chart was presented illustrating how, by measuring the width of the lower anteriors, the size of the remaining permanent teeth, with the exception of the upper anteriors, could be determined.

4. By the use of these charts, cases can be prognosticized.

5. Study the eruption sequence. For example, the first permanent molars should erupt before the anteriors in each jaw; and also the lower cuspids erupt before the first bicuspid.

6. Study the position of the teeth. With regard to spaces between maxillary anteriors, too frequently, he stated, this is blamed on the frenum. Although this may frequently be the case, quite often it is caused by the teeth themselves being too small or the tongue is too large; or again, missing laterals may also be the cause.

7. Study the molar relationship.

Dr. Moyers admirably presented many methods by which the general practitioner can step in and by comparatively simple procedures prevent many forms of malocclusion. He claimed that many orthodontists feel that from 55 to 65% of all cases they treat could have been prevented or at least been prevented from being severe cases of malocclusion.

The meeting was presided over by the president, Dr. Les Martin. Dr. Howard

Oliver introduced and Dr. Bob Harvey thanked the speaker. Sixty-two members were present. R.F.H.

The Mount Royal Dental Society held a general meeting on April 1, 1952. The feature of the evening was a "Symposium on Endodontics." The panel of experts included four of the members of the Society, namely, Doctors G. Zimmerman, L. Rosen, H. H. Pearson, and H. Israel. The moderator was Dr. M. Goldenberg.

The discussion took place in the form of questions placed before the panel. Dr. Pearson led off with "The Minimum Requirements of Endodontic Equipment" and the "Economics of Endodontics." He was followed by Dr. Zimmerman on "What is Adequate Sterilization Equipment" and "Indications and Contra-Indications for Root Therapy." Dr. Israel then discussed the "Indications and Contra-Indications for Surgical Intervention" and "Requirements of Root Canal Filling Materials." Dr. Rosen concluded the general presentation with "Therapeutic Requirements in Root Canal Treatment" and "Symptoms of Pulp Involvement and Diagnosis and Prognosis." S. Silver

The March meeting of **The Montreal Endodontia Society** took place in the form of an afternoon and evening clinic with the guest clinician being Dr. E. A. Lieban of New York City. Dr. Lieban, F.I.C.D., F.A.C.D., is the former director, Department of Pulp Canal Therapy, N.Y.U. College of Dentistry; postgraduate instructor of endodontia, U.S.N. Dental Corps; and endodontist Montefiore Hospital, New York. Although Dr. Lieban's subject was entitled "Accidental Injuries to Children's Teeth," he covered many of the different problems and techniques involved in the whole field of endodontics.

The fundamentals of root canal therapy are diagnosis, asepsis, debridement of canal and sealing of canal, stated Dr. Lieban; if these basic principles are adhered to, then the majority of cases may be intelligently treated in an orderly fashion. With these basic principles being strictly adhered to, Dr. Lieban proceeded to describe the removal of a vital pulp from anterior and posterior teeth. In the majority of these cases, he felt that he could safely fill the canals at the second appointment.

With regard to the problem of sensitivity of the pulp tissue following normal procedures of anaesthesia, the clinician recommended anaesthetizing in the interdental papillae and everywhere possible, followed by the use of phenol and

a topical anaesthetic directly on the pulpal tissue.

An interesting point was contributed by the speaker with regard to the filling material used in the molar teeth. So often, he stated, these teeth will require post crowns of some form following endodontic treatment; to prevent, therefore, the dislodgment of the silver points usually used in these canals, he suggested the filling of the distal canal in the lower molar and the lingual canal in the upper with gutta percha which can easily be drilled out without the danger of dislodging the whole filling as might be the case with the silver point.

In the treatment of putrescent pulps, it was stressed that the drugs used should be rotated; also that any supposedly granulomatous areas which continue to enlarge following treatment were obviously cysts.

To prevent discolouration which frequently occurs following endodontic treatment, Dr. Lieban suggested the flowing of thymol in alcohol in the canal immediately prior to filling, followed by chloroform. Where discolouration has occurred, however, he suggests the use of the 30 per cent hydrogen peroxide in the chamber and corona portion of the canal and the gentle use of warm air for one to two minutes followed by a waiting period, and then repeated as necessary until the tooth has been bleached to its proper colour.

Discussing accidental injuries to children's teeth, the clinician went thoroughly into most of the injuries encountered. Where a blow has been received but no fracture has been encountered, the bite should be relieved; if the enamel has been chipped, it should be smoothed; if the dentine is exposed, it should be smoothed and a medicament applied to reduce sensitivity; but if the pulp horn is exposed, the coronal portion of the pulp should be removed and calcium hydroxide applied and covered with cement. In all these cases, the teeth should be frequently x-rayed and pulp-tested.

When a small apical portion of the apex of an anterior tooth has been fractured, Dr. Lieban stated that frequently the tooth will remain vital and the apical portion will fill in. When a longitudinal fracture has occurred, however, he recommends extraction. Where teeth have been luxated, he suggests the returning of the tooth to its normal position followed by splinting; and where teeth have been completely knocked out, the filling of the canal, cutting off the apex and reinserting in the alveolus with splinting.

Dr. Lieban concluded his clinic by

discussing the handling of anterior teeth where pus continues to flow despite treatment. In such cases, he recommends the irrigating and filing of the canal disregarding the pus and then sealing it temporarily. An incision is then made buccally and the apical area exposed by the use of gouges and cleaned; this is now packed tightly with oxidized cellulose and the canal re-entered, thoroughly irrigated, filed and dried and filled. Any excess filling material and any jagged edges of tooth are now removed from the buccal window, the area cleaned, and lightly dusted with sulphanilamide; the area is now closed and sutured.

The meeting, which was well attended, was presided over by the president, Dr. Walter Phelps. It took place in the Mount Royal Hotel where dinner was also served.

R. F. H.

"A Contemporary Approach to Dental Medicine".

The following is the program of the May 29-31 meeting of the **American Academy of Dental Medicine** which is being held in Montreal.

THURSDAY MAY 29, MORNING AND AFTERNOON

Pre-Convention Seminar — Registered Clinics.

1. "Newer Concepts in Periodontia" by S. C. Miller D.D.S., F.A.C.D., F.A.D.M., Sydney Sorrin D.D.S., F.A.C.D., F.A.D.M., J. Lewis Blass Ph. G., D.D.S., F.A.C.D., F.A.D.M., of New York.

II. "Psychosomatics in Dentistry".

- a. Dr. Joseph S. Landa of New York.
- b. Samuel Leslie M.D., D.D.S., of Toronto, Ont. "The Psycho-biologic Approach to Maxillo Facial Neuralgia".
- c. Dr. Jack Stolzenberg of Brooklyn, N.Y. "The Application of Hypnodontics in Oral Psychosomatics".

FRIDAY MAY 30, AFTERNOON SCIENTIFIC SESSION

Essays.

"The Use of Radio-Active Isotopes in Dentistry".

Dr. J. P. Lussier of Montreal.

"Significance of Stress in the Practice of Preventive and Restorative Dentistry." Charles Moses D.D.S., M.Sc., (Dent.) of University of Toronto.

SATURDAY MAY 31, 9:30 A.M. AND 11:00 A.M.

Limited Attendance Clinics

1. "Precision and Semi-Precision Attachments and their Significance in Complete Mouth Rehabilitation."

Dr. Joseph S. Landa and Dr. Stuart Landa, New York.
 2. "Bone Implants".
 Dr. Armand Genest, Montreal.
 3. "Maxillo-Facial Surgery".
 Dr. John W. Gerrie, Montreal, M.D., D.D.S.
 4. "Restoration of Pulpless Teeth".
 Dr. H. M. Robichaud.
 5. "Symposium on Endodontics".
 Montreal Endodontia Society, Dr. Syd-

ney MacSween, Dr. Vincent Tremblay, Dr. George Zimmerman.
 6. "Oral Carcinoma".
 Dr. O. Dufresne, Montreal.
 7. "Surgical Procedures in Oral Pathology".
 Dr. Robert M. Weiner, Montreal.
 8. "Diagnosis in Oral Pathology".
 A. G. Racey, D.D.S., F.A.C.D., Montreal.
 9. "Encephalographic Radiology".
 Dr. Howard Oliver, Montreal.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

Charges and Remuneration:—The editor of the British Dental Journal has this to say, in part, in his March issue.

"It is satisfying to note that a number of Conservative members have made representations to the Chancellor of the Exchequer to the effect that the proposed plan of charging the first pound for dental services to the patient would discourage patients from seeking early and regular treatment, and so put a premium on dental neglect. This is sound doctrine.

"The alternative, advocated by both the Association and this group of M.P.'s, is to substitute for the charge of the whole cost up to the first pound a percentage charge on all estimates. This procedure would not be so simple to administer as that originally proposed, but it would have the negative merit of not placing a disproportionate burden on those patients who attend regularly for treatment, and if, at the same time, the age of exemption from the charges were raised to 21, most of the features of the scheme which are objectionable from a professional point of view, would have been removed.

"The question whether the Nation can or cannot afford to provide comprehensive dental treatment free of charge to every member of the population is not one which is strictly within the province of a professional journal. It is, however, emphatically the business of the profession to use all the influence it can bring to bear to ensure that the money which is spent by the State on the provision of dental treatment is expended so as to procure the greatest possible return in terms of the dental health of the community. There is, happily, no longer any need to argue the proposition that concentration of the efforts of the profession on providing complete treatment for the younger sections of the population will pay higher dividends than will a dispersal of effort over the whole field. The unexpectedly heavy demands on the profession under the

Health Service inevitably led to the emphasis being placed in the wrong place, and so obstructed the orderly development of a satisfactory dental health service. Much good work has, however, been done by practitioners in the general dental service to educate their young patients to appreciate the value of regular treatment, and it would be making the worst of both worlds to do anything, in the pursuit of economy, which would discourage this desirable tendency.

"The partial abandonment of the concept of a free comprehensive dental service has altered the basis on which practitioners entered the general dental service to their disadvantage. The sudden drop in demand which followed the imposition of charges for dentures brought a measure of real hardship to many dentists, and it seems certain that the new charges will deter still more patients from seeking treatment as early as they otherwise would have done. It is difficult to judge whether the demand has yet settled down to that which is to be regarded as normal in the new conditions."

The Dentists Bill passed through the Committee stage in the House of Lords on March 4. The principal amendment to Clause 19 renders it necessary for the Privy Council to consult the General Dental Council before the latter can be required to set on foot an experiment in the training of the New Zealand type of ancillary dental worker. Other changes provide that ancillaries who are permitted to undertake the extraction or filling of teeth, should only "do work of that kind in the course of National and local authority health services," and that they shall only be allowed to extract deciduous teeth.—Br. D. Jour. March 18, 1952.

Dental Operations—Statistics:—In a written reply on February 26 to Mr. Blenkinsop (Newcastle) the Minister of Health, in Parliament, stated that it was

estimated that during the nine months ended December 31, 1951, 9,100,000 teeth had been extracted apart from those in emergency for which no data were available; 7,600,000 teeth had been filled and 970,000 sets of full upper and lower dentures had been supplied.—Br. D. Jour. March 1952.

Gibbs' Travelling Scholarship:—The first Gibbs' Travelling Scholarship has been awarded to Mr. P. M. C. James, L.D.S. Eng. Candidates for the scholarship were required to present a thesis on "Dental Health Education for the Public as a Factor in Preventive Dentistry", and were interviewed by a committee elected by the British Society of Periodontology. Mr. James is to travel in Scandinavian countries for three months, beginning in April, to study oral hygiene methods.—Br. D. Jour.

Another Step Backwards is the title of an editorial in Dental Record of February. The following is taken from this editorial.

"The history of the Dental Health Service seems to justify those who believed in evolution rather than creation in toto, for the service has now been so mutilated from the point of view of the patient as well as that of the practitioner that its original idea cannot be said to have stood the test of even a brief passage of time. Finance has broken down, professional supervision has broken down, encouragement of the good clinician never existed, and now the Government, embarrassed by a financial situation which need never have arisen so far as the Health Service is concerned, proposes to penalize prophylaxis.

"Prophylactic dental medicine is at the moment little more than a dream, but those who dream it look forward to its becoming a reality. The intention of the Government to make the patient pay the first pound of the cost of any treatment will discourage many young people from seeking the services of a dentist at sufficiently frequent intervals, and it is they who need this service most.

"Doubtless some day the whole service will be recast upon a basis of realism. Until then we must endeavour to do our

best for the public in spite of the succession of unbelievable blunders in high places."

Mr. R. Cohen has been invited by Queen's University, Belfast to deliver two **Lectures on Dental History** during the current academic term. This does not, however, confer on the lecturer, membership of the Faculty of Medicine, of which the School of Dentistry forms an integral part.

Canadian dentists may recall that, in 1950, the University of Edinburgh invited Dr. J. Menzies Campbell to deliver a lecture on the same subject.

It is to be hoped that steps, such as these, will influence dental schools throughout Britain to create lectureships on dental history. Also, that this will soon become an obligatory subject in the dental curriculum.

J. Menzies Campbell

NEW ZEALAND

Dental Treatment of Children:—The Executive Council of the New Zealand Dental Association has resolved to support the principle that the dental profession should re-establish contact and responsibility for the dental treatment of children, and that the Government should assume financial responsibility for those children choosing treatment from the private practitioner—as is the case in the present State Dental Service as well as the Adolescent Service.

It was suggested that a plan be set up for post-graduate work for students, to increase their knowledge and assist them to become more interested in paedodontia.

Dental Supply Houses (re Mechanics):—The Executive Council of the New Zealand Dental Association passed the following resolution: "That the Executive Council recommends to the Central Executive that the head offices of all supply houses of dental materials throughout New Zealand be approached and asked to give assurances that they will not supply to unregistered men—(a) Impression trays; (b) Impression materials; (c) Surgical instruments; (d) Drugs used in Dentistry."

GENERAL NEWS

XIth International Dental Congress, London—July 19-26, 1952: A detailed provisional daily program for the Congress has been issued by the Committee of Organization.

The Congress will be opened on Satur-

day, July 19, at a ceremony in the Royal Festival Hall at 11 a.m. This is to be followed in the afternoon by a Garden Party at which members of the Congress and their families will have an opportunity of meeting each other.

A series of all-day tours have been arranged for Sunday, July 20, and there will be an Orchestral Concert in the Royal Festival Hall in the evening.

During the week four International Reports on various subjects will be presented on each day, and in addition there will be three Round Table Discussions, on Monday, Wednesday and Friday on the Control and Prevention of Dental Caries, Full Dentures, and Orthodontics respectively.

Table clinics will be given, morning and afternoon, on each day of the Congress, by a representative selection of demonstrators from all parts of the world.

There will also be a full daily program of films, including a number of new ones, and there is to be a program of televised demonstrations.

The scientific and oral hygiene exhibitions will be open daily for inspection and the Dental and Allied Trades are staging a comprehensive exhibition of equipment and materials.

The principal events in a full program of entertainments are the Congress Ball at the Royal Albert Hall on Wednesday, July 23, and the Congress Banquet at Grosvenor House on Friday, July 25.

Copies of the Preliminary Program and forms of enrolment for membership of the Congress can be obtained on application to the Secretary-General, XIth International Dental Congress, 12, Hill Street, Berkeley Square, London, W.I.

The subject for the **Canadian Dental Association's War Memorial Award** Competition is "Preventive Dentistry for Children and its Relationship to Diet."

Fluoridation of Water Supplies:— In the February issue the editor of the *Journal of the Michigan State Dental Association* has this to say about Fluoridation:

"With experimental data now available which remove the last reasonable doubt of the effectiveness of fluoridation of domestic water supplies as a caries preventive and with such unique unanimity of opinion among the nation's top authorities as to the safety of the procedure, there no longer seems any possible reason for withholding the benefits of fluoridation from the children of Michigan. That is where dentistry's great opportunity for service arises. Since the research which has established the effectiveness and safety of fluoridation has been done almost 100% by dental researchers it seems only proper that organized dentistry in every community should be the prime mover for fluoridation of fluorine-deficient water supplies."

Canadian Public Health Association, Dental Section Meeting—Winnipeg, June 15-18, 1952: The Dental Public Health Section of the Canadian Public Health Association will meet this year in the Fort Garry Hotel, Winnipeg, June 15-18.

Dr. Allen O. Gruebbel, the Secretary of the Council on Dental Health of the American Dental Association will present a paper at the general session of the annual meeting of the Canadian Public Health Association entitled "The Administration of Dental Public Health Services."

A joint section meeting on June 16 at 9.30 a.m. will be held with the sections on Nutrition and Public Health Nursing. The subject for this meeting is "Making Child Care Work." Dr. Gruebbel will take part in this section meeting and Dr. A. B. Sutherland, Dental Health Officer of the Sudbury Health Unit, will also participate.

The Dental Section at the meeting on Tuesday will discuss briefs submitted by two committees appointed at the Montreal meeting last year. Dr. F. A. Kohli will present his committee's report on "The Qualifications, Training and Duties of the Public Health Dentist." Dr. H. Brown's committee were to study standardized dental records for use in public health dental programs.

Dr. A. E. Chegwin, Director of Dental Health Services for Saskatchewan is chairman of the section, and will preside at the section meetings. Dr. Frank McCombie, Director of the Division of Preventive Dentistry of the British Columbia Department of Health is section secretary. Dr. Glenn T. Mitton, head of the Department of Dental Public Health, Faculty of Dentistry, University of Toronto, is program chairman for the Winnipeg meeting. The committee on local arrangements consists of Dr. A. E. Chegwin, Dr. H. R. Stewart, Director of Dental Services of the Manitoba Department of Health and a committee of Winnipeg dentists.

All dentists interested in Dental Public Health and a closer association with other public health organizations are urged to be present at the Winnipeg meeting of the Canadian Public Health Association, June 15-18, 1952.

Editor's note. It is unfortunate that this meeting conflicts with the Golden Jubilee Meeting of the Canadian Dental Association being held in Vancouver on the same dates.

Fluorides Rejected in Seattle:— By a vote of 86,230 to 44,814 Seattle rejected fluoridation of the city water supply after a heated contest which brought out voters in record numbers.

Verdict in Seattle: Referendum on Fluoridation:—The Editor of the Journal of the American Dental Association has this to say, in part, on the Seattle referendum:

"The dental profession has reason to be concerned because the Seattle referendum proves that it is possible to remove a problem, like fluoridation, from the scientific field to the realm of politics where every crackpot emotion can be exploited without the necessity of demonstration or proof. Such a transfer unhappily places on the general public an unnecessarily heavy burden since the average citizen is asked to decide, by vote, matters which go well beyond his course in first aid and his text in high school chemistry. The referendum in Seattle proved conclusively that the rumour and the guess can frequently outdistance the figure and the fact. All of those interested in the improvement of dental health must be concerned with the necessity of placing more facts before the public.

"It would be amusing, but not productive, to compile a catalogue of the many irrational charges that are being used against fluoridation: 'arterial and venous hardening,' 'undue financial anxiety,' 'loss of memory,' 'satyriasis,' 'hastens tooth decay,' 'nymphomania' and, worst of all, 'socialism.' Such charges have been a part of almost every program to introduce new public health measures particularly in immunization and in the chlorination of water supplies.

"It is a part of the American heritage to allow anyone to air his opinion—stupid and irrational though it may be. It remains for those who want this heritage to continue—not only in terms of free speech but also in terms of improved dental health—to get on with their job of seeking and publishing the fact. The safety and efficacy of fluoridation have withstood exhaustive and painstaking analysis. Surely this public health measure can weather the noises of the fringe groups and even, occasionally, the misunderstanding of the voting public."

Folder on Fluoridation Available for Lay Groups:—A new folder, "Why Your Dentist Recommends Fluoridation," has been published by the Council on Dental Health of the American Dental Association for distribution among non-professional groups and individuals.

Xylocaine Hydrochloride (Lidocaine Hydrochloride):—Birger Ofstad, L.D.S., Lecturer in Pharmacology at the Norwegian State Dental School, will report at the XI International Dental Congress in July that the chemical peculiarity of Xylocaine Hydrochloride is that it is not

an ester, like most other local anaesthetics, but an amide. The hydrochloride is easily soluble in water. The solution keeps well and can be sterilized by boiling. It even endures prolonged boiling with acids and bases without decomposition. It can be combined with epinephrine, and Xylocaine-epinephrine solutions with a pH of about 4 are very stable. In ordinary concentrations it has no irritating effects.

During the first period of clinical use of lidocaine (xylocaine) oedema was sometimes encountered after the anaesthesia. By further investigations (Ludquist, Lofgren, Persson and Sjogren, 1948) this was found to be due to metallic ions which passed into the solution from the metal of the syringe. When using lidocaine (xylocaine) therefore the solution should not be drawn into the syringe before it is to be used, unless syringes are used made wholly of glass. All-metal syringes should not be used. If glass syringes with metal plungers are used, care should be taken always to keep the interior of the glass clean. Otherwise the plunger, by friction against the glass, will deposit fine particles and the fluid will thereby be brought into contact with a large metal surface, just as if it were a metal syringe.

In the February 27 edition of the Proceedings of the Mayo Clinic the following conclusions are drawn from experiments with **Aureomycin Calcium Caseinate**:—Concentrations of aureomycin in the serum after the oral administration of aureomycin calcium caseinate are comparable to those obtained with regular aureomycin.

In a group of 24 patients treated with aureomycin calcium caseinate, 20 experienced no anorexia, nausea or vomiting, 1 patient noticed anorexia, 2 patients had nausea and 1 patient suffered from both nausea and vomiting.

Of a group of 6 patients who had previously experienced nausea and vomiting while taking regular aureomycin, 5 were completely free from these symptoms when aureomycin calcium caseinate was used. One patient noticed no benefit on being changed to aureomycin calcium caseinate. A seventh patient who noticed only nausea with regular aureomycin felt considerable but not complete relief when aureomycin calcium caseinate was substituted.

Aureomycin-calcium caseinate can be used as a substitute for regular aureomycin for those patients who have anorexia, nausea and vomiting when regular aureomycin is given.

Addendum

Since the preparation of this paper aureomycin calcium caseinate was given

to 3 additional patients who were unable to take terramycin because of nausea and vomiting. This substitution gave complete relief of nausea and vomiting.

Social Trends and Dental Practice:—An editorial in the April issue of the New York Journal of Dentistry has this to say, in part, on a very vital dental problem.

During the past few months the profession has become alarmingly aware that all is not well with the economic stability that we had come to accept as a permanent phase of our present-day existence. The resistance to dental treatment has become in some cases so acute that individual dentists are facing financial distress. We have all in one form or another experienced interference with the plan of treatment outlined to a patient. Essentially the basis for this rejection lies with the many changes that have occurred in the economic status of all levels of our population. The dental profession cannot hold itself apart from the readjustments that become evident.

For too long a time many of us have clung to the "Boom or Bust" philosophy wherein the sole fee-control has been the ability of the patient to absorb the shock. Those of us who are in the upper age group should be able to turn our thoughts back to the fabulous twenties when the same philosophy met with disaster. At the present time we have not advanced beyond the "point of no return." A sincere soul-searching appraisal can still allow the profession to reassociate its fees with the ability of our hard-pressed economy. The goal, it seems, is economic security for the dentist. Social consciousness or social responsibility to the patient or the community seems to be secondary.

Whether or not the government enters the picture with a socialized project, there is definite evidence that the patience of the leaders of the marginal groups is being tried and in many places trial programs are already being introduced or planned. The United Mine Workers approached organized dentistry, was refused and then instituted its own clinics for the care of its members. Successful and completely independent it is evident that there must be a resultant loss to the dentists practising in the areas serviced by these clinics.

In the Metropolitan area there are labour union clinics already functioning. The Health Insurance Plan is at present investigating the possibility of a dental insurance plan and Local 65 of the Distributive Workers Union is waiting for a favourable report from organized dentistry to enable it to implement a dental

service for its members many of whom are classed as semi-indigent.

One cannot tell how much stimulation dentists need to make them realize the trend of public thought, but this much is certain: unless organized dentistry begins to realize its social obligation and then proceeds to shoulder its responsibilities the end result will be exactly what we are so anxious to avoid.

Physicians, Dentists and Pharmacists Unite for Political Action:—The Inter-professional Committee of Cook County, Illinois, U.S.A., has again sounded the call to arms. Organized to uphold the American way of life and to oppose socialism in all its forms, the Committee proposes to enter the 1952 political campaign and support only those candidates for office who best uphold the American tradition.

For all practical purposes the American people will be called upon to choose between the free enterprise system and the socialistic state in the November election and it behoves the professional man to roll up his sleeves and enter the fray.

The Chicago Medical Society, the Chicago Dental Society and the Chicago Retail Druggists Association cannot legally participate in an election campaign but there is nothing to hinder the individual members of these organizations from organizing for political action. The Interprofessional Committee is such a group.

It will be necessary to raise at least \$50,000.00 from the three professional groups and their affiliates. Members of the dental profession will be just as hard hit as the members of the medical profession if socialism comes.—F. Rev. of Chicago D. Soc.

The New York Times reports that the greatest expansion program in the history of **Medical Education**, to cost \$250,000,000, is now under way in this country. Almost every college of medicine in the United States is planning to increase its physical facilities. New laboratories, additional classrooms, modern dormitories and special research clinics are on the drawing board or actually under construction.

Despite the expansions now taking place, large numbers of qualified applicants are unable to gain admittance to any medical college in this country. Many of them seek places in foreign institutions. The records indicate that 20,000 individuals applied for admission to American medical schools for the current college year.

IN MEMORIAM

Albert Henry Hudson of Timmins, Ontario, aged 49, was lost in a plane accident in August last and is presumed dead.

Dr. Hudson was graduated from the Faculty of Dentistry, University of Toronto, in 1929. On graduation he began practice in Toronto where he continued until 1934 and during this period was associated on a part-time basis with the dental service of the Toronto General Hospital. In 1934 he moved to Timmins where he had practised until the time of his accident.

In 1950-51 he was Secretary-Treasurer of the Northern Ontario Dental Association and had served the same organization as President in 1943-44. He was Secretary of the Porcupine Dental Society in 1943. He was President of the Timmins Kinsman Club in 1940 and Secretary of the Council of Service Clubs of the Porcupine in the same year.

Dr. Hudson was well known throughout the north. He was an enthusiast and an ardent sportsman. He was fond of the outdoors and greatly enjoyed his fishing and hunting. He had his own plane which he piloted himself. During the summer months he spent much of his leisure time in Timagami Park where he had a summer camp. In winter he was a keen curler and was best when competition was high. His untimely end from being lost in an accident with his own plane, brought gloom to the whole community where he was such a familiar figure.

Dr. Hudson is survived by his widow.

Wallace Ward McBain of Port Colborne, Ontario, aged 53, died on March 2.

Dr. McBain was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1923. He had always practised in Port Colborne.

He was a member of Port Colborne Lions Club; a member of Branch 56, Canadian Legion; past president of the University Club of Port Colborne and a

member of University Lodge A.F. and A.M.

Dr. McBain served in the Dental Corps and the Royal Air Force in the First Great War. He organized the Lynton Davies Squadron, Royal Canadian Air Cadets at Port Colborne. He later became Niagara district chairman, then provincial chairman and latterly national director of the Air Cadet League of Canada. He was awarded aeronautical membership in the U.S. civil air patrol when he took Canadian Air Cadets to the United States on a tour in 1915. As late as February of this year he was given the highest civilian award by the R.C.A.F.—The Scroll of Honour for outstanding service to aviation, the R.C.A.F. and Canada.

Dr. McBain was a member of Port Colborne United Church.

He is survived by his widow and two sons.

William George Evans Spence of Listowel, Ontario, died on March 4.

Dr. Spence was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1912.

He is survived by his widow, one daughter and a son, Dr. Bruce Spence of Listowel.

Alma Lillian McEwen died January 11 at the Toronto General Hospital. She had practised dentistry in Toronto for 30 years.

Dr. McEwen was born in Tiverton, Ontario. She attended Riverdale Collegiate and then University of Toronto. Her practice was first established at 467 Spadina Ave., and latterly in the Medical Arts Building. Since 1928 she had been part time with the City Public Health Department. Rosedale Presbyterian Church was her church home. She was a member of the University Women's Club and the Academy of Dentistry.

Three sisters survive.

Editor's note: This is a corrected notice written by Dr. Marion Joy of Toronto.

DIRECTORY

Canadian Dental Association Headquarters—234 St. George Street, Toronto, Ontario.

Matters relating to the publication of manuscripts or news items for the English Section of the Journal should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

Matters relating to the French Section of the Journal should be addressed to the French Editor, Dr. G. de Montigny, 400 est Blvd. St. Joseph, Montreal, P.Q.

Matters relating to the business of the Journal should be addressed to the Business Manager, Dr. Don W. Gullett, 234 St. George Street, Toronto, Ontario.

All changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Le traitement des fractures de la mandibule au moyen du brochage circonférenciel

par GASTON CHESNAY, D.D.S., Montréal

L'homme contemporain est plus sujet aux accidents de toutes sortes que son prédécesseur d'il y a cinquante ans. La vitesse, qui le transporte d'un endroit à un autre, la multiplicité des sports, qui exposent ses membres à des chocs périlleux, ne sont que deux facteurs parmi un grand nombre qui ont changé son existence et qui l'exposent à des traumatismes, tous les jours. La tête n'est pas épargnée et le dentiste est souvent appelé à traiter des blessures faciales, faites de fractures des os malaire, maxillaire, zygomatique et mandibulaire. Il existe de nombreuses méthodes de traitement pour la réduction et l'immobilisation de ces fractures. La découverte des antibiotiques et les réalisations accomplies dans le domaine des acryliques ont simplifié le traitement de ces accidents osseux de la face; par contre, la variété accentuée de ces fractures rend parfois la tâche du chirurgien plus complexe.

Dans cet article, nous essaierons d'exposer en détail la méthode du brochage circonférenciel pour fixer une fracture simple de la mandibule.

La fracture de la mandibule donne naissance à plusieurs symptômes caractéristiques, faciles d'interprétation pour le

thérapeute qui doit poser un diagnostic.

Parmi ces symptômes, mentionnons:

- 1) La *douleur* qui est généralement aiguë et qui s'accroît au moindre mouvement de l'organe malade. Cette douleur est ressentie au site de la fracture quand un fragment est bougé.
- 2) La *sensibilité*, à la pression exercée à l'endroit de la fracture.
- 3) La *perte de fonction*, partielle ou totale, selon l'endroit de la fracture.
- 4) L'*enflure*, causée par la congestion de sang et de sérum dans les tissus mous périphériques.
- 5) La *coloration* de la peau et des muqueuses, quand le sang sorti des vaisseaux atteint la surface.
- 6) La *difformité* de l'os fracturé, causée par la traction des différents groupes musculaires sur les fragments; cette difformité entraîne nécessairement un changement dans l'occlusion des dents.
- 7) La *mobilité* anormale de la région fracturée.

- 8) Le *crépitement* sourd ressenti à la manipulation des fragments.

Ces signes cliniques doivent toujours être confirmés par un examen radiographique.

Le traitement est basé sur la réduction des fragments, c'est-à-dire dans leur remise en contact normal, et sur l'immobilisation, c'est-à-dire le maintien de ce contact normal durant une certaine période.

Pour arriver à cette fin, il existe une foule de techniques différentes dont le choix est fixé par le genre de fracture et la préférence personnelle ou l'expérience du chirurgien. Mentionnons d'abord le bandage de Barton, qui est un traitement palliatif et d'urgence lorsque l'opérateur se trouve dans l'impossibilité de prodiguer des soins plus élaborés. Viennent ensuite les arches (Winter, Jelenko, etc.) utilisés dans les cas où il y a suffisamment de dents en bouche pour permettre un brochage intermaxillaire. On peut aussi avoir recours au brochage direct des dents en occlusion, aux oeillets d'Ivy, aux barres d'orthodontie avec bandes sur molaires ou prémolaires, ou à des combinaisons de ces méthodes selon le cas.

Des attelles occlusales en métal mou reliées à des couronnes cimentées sur les dents, des appareils fixés aux fragments osseux et joints à un casque de plâtre, les dispositifs "Roger Anderson," dont les tiges sont insérées dans les fragments osseux et sont maintenues rigidelement en place par des écrous placés à l'extérieur de la face, sont d'autres moyens mis à la disposition du dentiste pour réaliser son travail du traitement des fractures des maxillaires.

Le brochage circonférenciel de la mandibule est recommandé pour les fractures de la branche horizontale, antérieures à l'angle, chez les patients édentés ou partiellement édentés. Il ne sera pas question ici du "Gunning Splint," mais bien du simple brochage circonférenciel.

L'instrumentation requise est simple et

facile à manipuler. Il faut un modèle de la mandibule, sur lequel on construit une attelle en acrylique ou en argent. L'acrylique est préférable parce qu'il est plus léger et moins dispendieux. Cette attelle recouvrira la crête alvéolaire et sera semblable à une plaque-base, sans boudin de cire, et sans dents. (Photo A et B, plateau et attelle.)

Voici la conduite à tenir pour le chirurgien-dentiste, dont le patient est hospitalisé et pour qui il a confectionné une attelle adaptée à la crête alvéolaire. Il est une série de prescriptions pré-opératoires à donner la veille de l'intervention. Enumérons-les:

- 1) Signature du consentement à l'intervention par le patient ou par la personne responsable.
- 2) Rasure de la figure.
- 3) Sulfate d'atropine: 1/150 gr., 1/2 heure avant l'opération.
- 4) Demerol: 2cc.

A la salle d'opération, la méthode anesthésique de choix est l'intubation intratrachéale (voie nasale) pour éliminer toute possibilité d'aspiration de sécrétions et de débris buccaux.

L'opérateur fait son broissage, revêt sa tunique et met ses gants stériles.

Quand le patient est prêt à l'opération, le chirurgien procède de la façon suivante:

- 1) stérilisation du champ opératoire (joues, menton et région sous-maxillaire) avec alcool à 75% et Merthiolate 1/1000 (Fig. no 1).
- 2) isolement du champ opératoire avec des draps stériles. (Fig. no 2)
- 3) localisation des points d'incision (Fig. no 3).
- 4) incision de la peau, sur une étendue d'environ 2mm. à un endroit légèrement postérieur à la base de la branche horizontale de la mandibule. (Fig. no 4)

- 5) enfoncement dans cette incision d'une canule et d'un trocar en longeant la face interne de la branche horizontale de la mandibule; perforation du plancher de la bouche en contact avec la face interne de la mandibule. Le trocar est retiré, mais la canule est laissée en place. Dans cette canule, on introduit un fil de bronze ou d'acier inoxydable no 26, qu'on laisse sortir aux deux bouts de la canule. La canule est retirée et le fil maintenu en place du côté lingual. La même méthode est utilisée pour le côté buccal; mais cette fois, on procède de l'intérieur à l'extérieur, c'est-à-dire qu'on enfonce le trocar muni de sa canule dans le replis muqueux, en contact avec la face externe de la branche horizontale de la mandibule pour le faire sortir dans la même perforation de la peau, qui avait servi à la première introduction du trocar (du côté lingual). Quand la perforation est complétée, on retire le trocar en laissant la canule dans les tissus. Le fil enfoncé du côté interne est enfilé dans la canule; le bout du fil situé à l'extérieur de la cavité buccale est glissé dans la canule et poussé dans la bouche. Le fil entoure alors le bord inférieur de l'os et ses deux extrémités voisinent chaque côté de la crête.

Il est suggéré d'utiliser une aiguille à aneurisme pour faire la perforation externe, au lieu du trocar et de la canule. Ce procédé est plus rapide et moins traumatisant. (Fig. nos 5, 6, 7)

- 6) Deux ligatures métalliques doivent être insérées de cette façon du côté de la fracture; l'une en avant de la fracture et l'autre en arrière. Du côté indemne, une ou deux ligatures sont suffisantes pour l'immobilisation de l'appareil et la réduction des fragments. Avant de

mettre sur les crêtes l'attelle de soutien, il est bon de s'assurer que les fils sont bien accolés au bord inférieur de l'os par un mouvement de va et-vient.

- 7) l'appareil est alors mis en place sur la crête (Fig. no 8). Les deux bouts de fil, l'un sortant de la muqueuse du côté buccal et l'autre du côté lingual, sont alors enroulés l'un à l'autre en contact serré avec l'attelle. Il faut que cette attelle soit bien accolée à l'os et maintenue intimement en position par les fils métalliques. Les bouts des ligatures en métal sont coupés à environ 10 ou 15 mm. de la surface de l'appareil. Cette extrémité est repliée sur elle-même et accolée à l'appareil pour éviter les blessures ou les égratignures aux muqueuses des joues et de la langue. •
- 8) les incisions de la peau sont refermées avec de la soie ou du Dermalon. Habituellement, on recouvre le menton du patient d'un bandage élastique, genre Barton. On peut aussi fabriquer une mentonnière pour soutenir la mandibule. (Fig. no 9)

Quand des dents sont présentes dans le maxillaire supérieur, elles peuvent servir à l'immobilisation de la mandibule. Une prothèse complète supérieure peut aussi être confectionnée et servir d'une façon ou de l'autre à la fixation du maxillaire inférieur.

L'opération terminée, les prescriptions suivantes sont inscrites au dossier:

- 1) Abbocillin, 600,000 unités, stat.
- 2) Application de glace en permanence sur le menton.
- 3) Diète strictement liquide.
- 4) Phosphate de codéine, 0/03 gr., q. 4 h, contre la douleur.
- 5) Laxatif léger.

L'appareil est laissé en place de 4 à 6 semaine. Le malade est examiné toutes les semaines et des radiographies de contrôle prises de temps à autre. La convalescence est d'ordinaire sans complications et les résultats fort satisfaisants. Tout au plus, avons-nous constaté des infections banales des incisions cutanées, sans aucune conséquence pour la guérison finale du cal osseux.

A la fin du traitement, les broches circonférencielles s'enlèvent facilement en les coupant dans la bouche et en exerçant une traction rapide dans leur axe; elles glissent dans les tissus en longeant les surfaces osseuses avec laquelle elles sont en contact et laissent des perforations insignifiantes, qui guérissent par première intention.

3689 av. du Parc

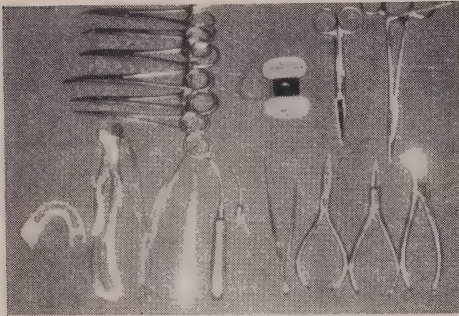


Photo A

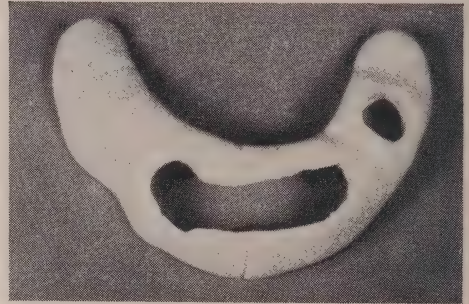


Photo B



Fig. no 1



Fig. no 3



Fig. no 2



Fig. no 4



Fig. no 5



Fig. no 8



Fig. no 6

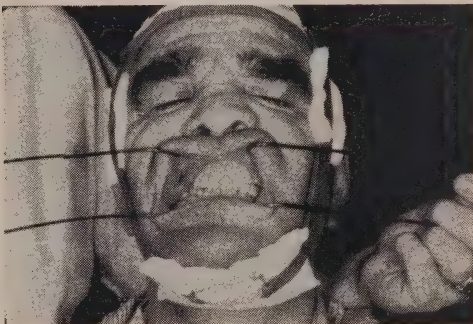


Fig. no 9

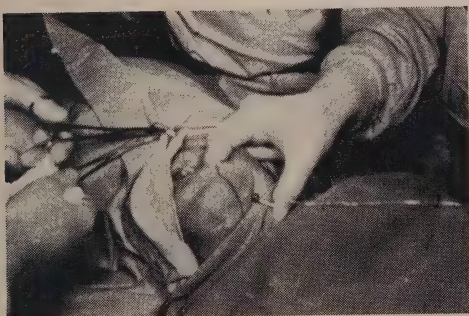


Fig. no 7



Congrès de l'Association Dentaire Canadienne à Vancouver

les 15, 16, 17, 18 juin 1952

PROGRAMME

dimanche, le 15 juin

A.M.—Enrégistrement.
P.M.—Concert.

lundi, le 16 juin

A.M. 8.30 hrs—Enrégistrement.
9.30—Ouverture officielle.
10.30—Georges M. Hollenback, Los Angeles, Calif.
Sujet: "Dentisterie opératoire".
12.30—Dîner de l'A.D.C.
P.M. 2.30—Philip Jay, Université du Michigan.
Sujet: "Dentisterie préventive".
3.30—Earl Pound, Los Angeles, Calif.
Sujet: "Prothèse".
7.00—Réunions de groupes

mardi, le 17 juin

A.M. 9-12 hrs.—Cliniques de groupes.
Cliniciens:
1) D. G. McIntosh, Toronto. "Périodontie".
2) G. D. Stibbs, Université de Washington. "Dentisterie opératoire".
3) W. H. Hagen, Seattle. "Dentisterie opératoire".
4) Gerald Racey, Montréal. "Pathologie".
5) R. R. McIntyre, Calgary. "Orthodontie".
6) W. H. Gyllenberg, Long View. "Dentisterie opératoire".
7) B. Jankelson, Seattle. "Prothèse".
8) J. Ingle, Université de Washington. "Endodontie".
9) A. G. Schultz, Seattle. "Dentisterie opératoire".
10) F. L. Jacobson, Université de Washington. "Dentisterie opératoire".
P.M. 2-5 hrs.—Cliniques de tables et au fauteuil.
2.00—Saul Robinson, Portland, Oregon. Conférence et clinique continue.
Sujet: "Prothèse".
3.30—John Kuratli, Université d'Oregon.
Sujet: "Incrustations, Couronnes et Ponts".
7.00—Réception et danse du Président.

mercredi, le 18 juin

A.M. 9-12 hrs. Cliniques de groupes.
12.00—Dîner de l'Association Dentaire de la Colombie britannique.
P.M. 2-5 hrs.—Cliniques de tables et au fauteuil.
2.30—H. W. Worth, Université de Toronto.
Sujet: "Interprétation radiographique."
3.30—Roy F. West, Seattle.
Sujet: "Chirurgie buccale au service du praticien général."

NOTES

L'A.D.C. a obtenu des tarifs de chemin de fer, à prix réduits. Pour profiter de cette aubaine, il faut présenter un certificat mis à la disposition des membres par le Secrétaire de l'Association, 234, rue St-George, Toronto.

Les dépenses occasionnées par le Congrès sont déductibles de l'impôt sur le revenu, à condition de joindre à son rapport un reçu officiel du secrétaire du Congrès.

Un programme de visites et de réceptions a été organisé pour les dames: croisière, visites de centres de décoration intérieure, etc.

Le golf n'a pas été négligé et des tournois sur un des parcours les plus réputés du Canada auront lieu tous les jours.

Le billet de chemin de fer accorde le droit de séjour à tous les endroits situés sur le trajet. Les Montagnes Rocheuses (Banff, Lac Louise, Jasper, etc.) sont à proximité de Calgary.

On réserve ses chambres d'hôtel, en s'adressant au Dr Charles M. Whitworth, 418 Medical-Dental Bldg., Vancouver 1, C.B.



PAGES EDITORIALES

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GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., F.I.C.D.

400 est Boul. S.-Joseph, Montréal

Il ne faut pas exagérer . . .

La science médicale contemporaine reconnaît la possibilité de guérir le cancer à sa période initiale, à condition que les lésions soient reconnues à temps et traitées à fond. Pour attirer l'attention du public sur l'importance du diagnostic précoce des tumeurs malignes, divers organismes de santé utilisent tous les moyens modernes de la publicité: pancartes, radio, télévision, cinéma, conférences de vulgarisation, etc. On organise dans les grands centres médicaux du pays des cliniques de dépistage et on prie les praticiens, qui examinent des malades à la journée longue, d'avoir les yeux ouverts pour déceler toute pathologie susceptible d'évoluer vers un état incurable. On se rend compte du service immense que le médecin ou le dentiste peut rendre à son patient, en lui soulignant une lésion qui peut être traitée et guérie avant que la métastase ait étendue ses ramifications dans tout l'organisme.

Ces campagnes de dépistage précoce du cancer et les soins attentifs mis par les thérapeutes à rechercher dans la bouche de leurs patients, par exemple, toute excroissance ou toute modification de tissu douteuses sont dictées par un idéal des plus nobles et des plus humanitaires. Cependant, cette publicité à outrance peut, chez certains individus, créer un complexe morbide, fait de peur inconsciente et d'anxiété déprimante. Quand certains patients sont convaincus qu'ils sont atteints de cette affreuse maladie, rien ne peut leur enlever cette certitude: ni l'assurance de leur médecin, ni l'avis contraire des spécialistes ne réussissent à soulager leur inquiétude. Ainsi, une propagande organisée comme service de santé publique manque parfois son but et devient cause de déséquilibre mental.

De même, dans son cabinet, le dentiste doit être bien prudent dans ses paroles, quand il note une lésion pathologique de la muqueuse de son patient.

Il doit connaître suffisamment les caractères clinico-pathologiques des néoplasmes pour ne pas les confondre avec ceux des tumeurs bénignes. Surtout, il doit éviter de prononcer le mot "cancer," avant d'avoir en sa possession des preuves anatomo-pathologiques, qui ne laissent aucun doute. Pourquoi jeter le désarroi et la panique dans un esprit heureux et tranquille? Trop de dentistes utilisent à tort et à travers un vocabulaire effrayant "Pré-cancéreux." "Il faut cesser de fumer." "Cancer", quand ils aperçoivent des taches blanchâtres sur les muqueuses; ils croient toujours être en présence de leucoplasie. Cette attitude du praticien dénote des lacunes d'éducation et un manque de psychologie regrettables.

Nous espérons que ces dentistes ont des intentions droites et qu'ils n'envisagent que le bien-être de leurs patients, quand ils tiennent une conduite semblable.

Mais il faut être plus réservés et attendre les résultats d'une biopsie avant de se prononcer trop catégoriquement.

Et si, par malheur, les examens de laboratoires révélaient la présence de cellules néoplasiques malignes, il n'est pas nécessaire d'annoncer la nouvelle au patient lui-même; ce diagnostic peut se transmettre à des proches qui sauront trouver la formule pour la conduite à tenir.

Et si le patient a des doutes, le dentiste essaiera de les dissiper avec des mots encourageants et pleins d'espoir. Nos paroles et nos gestes doivent être appuyés sur la charité chrétienne.

GERARD DE MONTIGNY

Club International de Morphologie Faciale

Fondé à Paris, le 2 mai 1951, par les docteurs Caubépé (France), de Coster (Belgique), Dreyfus (Suisse), Hoffer, (Italie) et Korkhaus (Allemagne), le club International de Morphologie Faciale a reçu son incorporation juridique à Lausanne, le 3 septembre 1951, en présence de M. Paul Berger, avocat, et sous la présidence du Dr Dreyfus.

Le but de cette organisation est l'étude scientifique de la morphologie de la figure et de la tête; ses membres sont choisis par les membres-fondateurs, sans discrimination de nationalités.

On obtient tous les renseignements désirés du Dr Caubépé, 3 rue Picot, France.

Conseil Aux Dentistes

Londres, 11, (PC) Voici le plus récent des conseils aux dentistes: si vous extrayez une molaire, laissez le patient mordre le pouce de votre main libre.

C'est le Dr A. Livingston qui, dans le journal des dentistes britanniques, dit que ce procédé peut diminuer la douleur sans blesser le dentiste qui, au préalable, aura posé quelques tours de gaze sur son pouce. Le Dr Livingstone explique qu'en extrayant une molaire inférieure, la pression exercée sur la mâchoire peut devenir très douloureuse et que la morsure du pouce du dentiste, en équilibrant la pression sur les deux côtés de la mâchoire il en résulte un soulagement pour le patient.

NOUVELLES DE L'ASSOCIATION

Réunion annuelle à Vancouver

Le grand nombre de réservations faites à date laissent prévoir une grosse assistance au Congrès annuel, qui aura lieu à Vancouver du 15 au 18 juin.

Le fascicule, qui a été expédié par la poste à tous les membres de l'Association, renferme un programme des mieux équilibrés.

Les dentistes canadiens qui se proposent d'assister à cette réunion ne devraient pas tarder à faire leur réservation. On s'adresse pour retenir des chambres à l'hôtel au Dr C. M. Whitworth, 218 Medical-Dental Bldg., Vancouver, C.-B. Une somme de \$15.00, couvrant les frais d'enregistrement, doit accompagner la demande.

Une organisation de transport en commun par chemin de fer a été mise sur pied; ces départs auront lieu de Toronto, Montréal et Ottawa, vendredi soir, le 6 juin.

Des places seront réservées sur le train en écrivant aux quartiers-généraux de l'A.D.C. ou en s'adressant aux agents du Pacifique Canadien. Cette compagnie de chemin de fer est au courant des projets de l'Association. On peut obtenir des certificats, qui allouent une réduction des tarifs ordinaires des chemins de fer, en les demandant au Secrétaire, 234 St. George St., Toronto.

Plan d'assurance-pension de l'A.D.C.

La dernière réunion plénière du Bureau des Gouverneurs a endossé un plan d'assurance-pension pour les membres de l'A.D.C. Depuis ce temps, on a mis au point une foule de détails techniques pour cette assurance-groupe; ces retouches finales expliquent le retard à faire part aux membres de ce plan d'assurance. Actuellement, toutes les difficultés sont applanies et les membres auront reçu les renseignements nécessaires d'ici le 1er mai. Depuis quelques années, la sécurité sous toutes ses formes est à l'ordre du jour. Aujourd'hui, on doit choisir entre

la sécurité collective ou la sécurité individuelle: c'est une question vitale. Les dirigeants de notre Association sont d'avis que le dentiste préfère organiser sa propre protection, plutôt que de compter sur les autres. Après plusieurs années de recherches pour trouver un plan de protection, qui conviendrait aux membres de la profession dentaire, la formule a été adoptée. Avant de l'endosser, l'Association a sollicité des opinions de tous les milieux possibles sur la solidité du plan; des actuaire indépendants ont même étudié, à sa demande, la disposition de ses taux; chacun des membres de l'Association aura l'occasion d'étudier ses mérites, quand tous les détails seront disponibles.

Les bourses d'étude du Comité des Recherches de l'A.D.C. et du Conseil National des Recherches se complètent

- "1) Les bourses d'étude du Conseil National des Recherches sont offertes aux étudiants qui ont déjà une certaine expérience dans le domaine des recherches et qui ont déjà reçu au moins l'équivalent d'une année d'études post-scolaires.
- 2) Le Conseil National des Recherches désire que les étudiants apprennent les rudiments de la recherche en prenant part à un projet de recherche plutôt qu'en approfondissant les sciences fondamentales qui les prépareront à entreprendre des projets de recherche.
- 3) Ces bourses d'études furent mises à la disposition de candidats durant deux ans avant qu'un seul en profite. Cette situation s'explique peut-être par le fait que les étudiants ne possédaient pas les qualifications requises.
- 4) Les bourses d'études du Conseil sont offertes aux étudiants expérimentés dans la recherche pour leur permettre d'entreprendre des études de recherches spécifiques. Celles du Comité des Recherches de l'A.D.C. ser-

vent à préparer des étudiants doués à la recherche et à pousser leurs études dans les sciences de base; les intentions de ces deux organismes semblent se compléter. Les bourses d'études de l'A.D.C. préparent des candidats sérieux aux bourses du Conseil National des Recherches."

Pamphlet: Un guide d'étiquette professionnelle

Ce pamphlet vient d'être expédié à tous les membres de langue anglaise de l'Association. La copie française sera imprimée prochainement. A date, plusieurs commentaires élogieux se sont fait entendre. La préparation de ce pamphlet a été rendue possible grâce aux membres du Comité d'Ethique professionnelle. Le Bureau des Gouverneurs en a approuvé le contenu à sa dernière assemblée annuelle; il renferme la politique de l'Association sur la question des relations professionnelles. On peut s'en procurer d'autres copies en écrivant au Secrétaire.

Des dentistes canadiens prennent part au Congrès de Londres, en juillet 1952

Le programme préliminaire du 11^e Congrès de la Fédération Dentaire Internationale, qui aura lieu à Londres, du 9 au 16 juillet, vient d'être publié. On peut y lire les noms suivants des dentistes canadiens qui participeront au programme scientifique: les Drs Stewart A. MacGregor (Pédodontie), J. H. Johnson (chirurgie buccale) et R. J. Godfrey (prothèse partielle). Environ cinquante dentistes canadiens ont rempli leur formule pour assister à cette réunion. L'enregistrement doit être complété au Canada avant le départ. Des formules sont disponibles aux quartiers-généraux de l'A.D.C.

Délégation britannique au sujet de la fluoruration

Le Gouvernement d'Angleterre a délégué une mission de quatre experts pour étudier la fluoruration des eaux des aqueducs aux Etats-Unis et au Canada. Le professeur Stones, un scientifique de marque en Grande-Bretagne, et qui est

doyen de l'Ecole Dentaire à l'Université de Liverpool, s'est rendu à Toronto durant la dernière semaine de mars. Durant sa visite, le professeur Stones a rencontré les membres du Comité des Recherches de l'A.D.C. et a eu des entrevues avec des autorités sur cette question; il a de plus fait un voyage à Brantford, où un projet de fluoruration est en cours.

Diplômés en Hygiène Dentaire Publique

L'Ecole d'Hygiène de l'Université de Toronto vient de publier son rapport annuel où il est mentionné que 20 dentistes y ont reçu leur diplôme en Hygiène publique. Dix-sept de ces diplômés sont actuellement à l'oeuvre à l'emploi de services de santé publique. Ces dentistes exercent leurs activités aux endroits suivants:

2 travaillent pour le Gouvernement Fédéral

7 travaillent pour des Gouvernements provinciaux

7 travaillent dans des unités ou des régions sanitaires

1 est attaché au personnel enseignant d'une faculté dentaire.

Faits divers

—Le Dr Robert E. Moyers, professeur d'orthodontie à l'Université de Toronto a pris part à un débat sur l'aspect social de l'orthodontie. Ce débat auquel participaient plusieurs spécialistes, avait lieu à Washington les 10 et 11 mars derniers. Cette réunion était organisée sous les auspices du Children's Bureau de la U.S. Federal Security Agency.

—Le Conseil d'Enseignement Dentaire de l'Association Dentaire Américaine rapporte une augmentation de 57.6 pour cent du nombre des étudiants en chirurgie dentaire dans une période s'étendant de 1940 à 1952. Cependant, il note que la population a augmenté d'avantage que le nombre des dentistes et que, par conséquent, la proportion des dentistes vis-à-vis la population a baissé.

—L'Ecole d'Orientation professionnelle du Dr D. J. Brass a ouvert ses portes récemment à Yorkton, Sask. Le Dr Brass est décédé en 1950. Il s'était toujours in-

téressé à l'enseignement et aux affaires municipales. Durant plusieurs années, il fut membre du Conseil des Chirugiens-Dentistes de la province de Saskatchewan.

Fonds de Bienfaisance de l'Armée

Un grand nombre de membres de l'Association s'enquière des services dentaires donnés sous la responsabilité du Fonds de Bienfaisance de l'Armée. La plupart de ces confrères critiquent la façon dont l'administration de ces services est faite. Ces observations ont été rapportées aux personnes responsables de ce Fonds de Bienfaisance. Plus bas, on peut lire la réponse que nous fait tenir, M. Chadderton, secrétaire National du Fonds de Bienfaisance de l'Armée, avec permission de publier. Nous pensons que ces explications sauront satisfaire nos membres.

"Cher docteur Gullett,

Votre lettre du 23 janvier 1952, adressée au secrétaire du Comité d'Ontario de ce Fonds, a été soumise au Bureau de Direction du Fonds de Bienfaisance de l'Armée.

Celui-ci a étudié les remarques formulées par votre Association au sujet de l'habitude qu'ont les officiers du Fonds de faire donner des traitements dentaires pour des honoraires plus bas que ceux généralement établis par la profession.

En général, le Fonds ne s'engage pas au pré-paiement des services médicaux et dentaires; cette question est laissée au bon vouloir de ceux qui sollicitent ces traitements ou encore à l'organisme qui s'adresse au Fonds de Bienfaisance de l'Armée. Ces organismes sont; la plupart du temps, des associations de bien-être ou d'assistance, publiques ou privées.

Il faut dire, toutefois, qu'à cause de circonstances spéciales, il est arrivé parfois que des membres du personnel du Fonds se soient mis directement en contact avec des dentistes pour régler les honoraires de certaines personnes aidées par le Fonds. Il est possible que les honoraires fixés, dans ces cas, par des membres de notre personnel, aient été inférieurs à ceux fixés par le Ministère des Affaires des Vétérans ou d'autres orga-

nismes du gouvernement. Des agissements du genre ont sans doute donné naissance aux protestations contenues dans votre lettre à M. Ranney.

La solution à ce problème nous paraît assez simple, comme question de fait. Comme nous le mentionnions plus haut, nos employés ne doivent pas s'occuper de régler la question des services médicaux et dentaires. Et le Bureau de Direction va prendre des mesures pour rappeler aux intéressés qu'en aucune circonstance ils ne pourront fixer des honoraires pour des traitements dentaires qui sollicitent de l'aide du Fonds. A l'avenir, seuls les patients ou les organismes de charité, devront débattre la question des honoraires avec le dentiste.

Permettez-moi de souligner que le Bureau de Direction a été favorablement impressionné par la manière avec laquelle vous lui avez présenté cette question; il vous remercie d'avoir bien voulu attirer son attention sur cet état de choses. Les directeurs du Fonds désirent des relations les plus cordiales avec les diverses associations qui peuvent aider les vétérans que nous assistons.

Enfin, je voudrais souligner un autre point. Vous êtes peut-être sous l'impression que le Fonds de Bienfaisance de l'Armée est un organisme du gouvernement, comme vous paraissez le croire dans votre lettre (3ième paragraphe); tel n'est pas le cas. Le Fonds n'est pas une entreprise de la Couronne et il est organisé et dirigé par un groupe d'hommes d'affaires et de professionnels, qui s'en occupent bénévolement. Il se peut que vous soyez au courant de ces détails, mais comme nous tenons à souligner le caractère privé du Fonds, nous profitons de cette occasion pour le faire connaître à nouveau.

Nous croyons avec raison que les dentistes et que votre Association désirent aider notre organisation et en réponse aux sentiments que vous nous exprimez à cet effet, je tiens à vous dire que de notre part, nous formulons des vœux pour une harmonie totale avec votre association.

Bien à vous,

H. C. Chadderton, secrétaire national,
Fonds de Bienfaisance de l'Armée."

Les services de santé gratuits de l'Angleterre deviennent de moins en moins gratuits

Le gouvernement anglais se décharge petit à petit des obligations financières qu'il s'était imposées en établissant les services de santé, par une série d'amendements et de règlements. Depuis son inauguration, en juillet 1948, le service de santé a subi de nombreuses modifications, toutes destinées à alléger les frais exorbitants des traitements dentaires. A trois occasions différentes, le gouvernement a adopté des mesures pour diminuer les honoraires payés aux dentistes. Le gouvernement a de plus établi des règlements qui, selon l'avis de la profession, tendent à sacrifier le valeur des traitements au bénéfice du budget. Tout dernièrement, on a annoncé à la population qu'elle devrait payer un livre pour chaque traitement dentaire.

La portée de ces changements soudains et de ces nouveaux règlements peut-être n'être pas bien saisie par des personnes qui ne sont pas au courant de la situation mais, nous en avons une répercussion significative. Le dernier amendement nous amène au Canada une correspondance volumineuse nous venant de techniciens qui nous disent vouloir immigrer ici parce qu'ils ne peuvent plus subsister dans leur pays. Une épouse de dentiste nous dit que son mari, qui employait depuis une vingtaine d'années deux techniciens, a dû congédier ces derniers.

Nous pouvons voir d'ici l'effet que cette situation peut avoir sur la dentisterie préventive. Le public avait été habitué à recevoir gratuitement ses traitements dentaires; maintenant on lui demande de payer quelque chose et on comprend sa réaction. Le dentiste, en tant qu'individu, a peu ou pas de contrôle sur cet état de choses. C'est la conséquence logique de la perte de l'initiative privée du dentiste au bénéfice de l'étatisation.

Nouveau délégué pour Terre-Neuve

A l'assemblée annuelle de l'Association Dentaire de Terre-Neuve, tenue le 18 février dernier, le Dr W. L. Goodwin, de Havre-de-Grâce, a été nommé dé-

légué de Terre-Neuve à l'A.D.C. Le Dr Goodwin succède au Dr E. P. Kavanagh, qui faisait partie du Bureau des Gouverneurs depuis 1950.

Comité d'éthique professionnelle: Déclaration au sujet de garantie de matériaux à dentiers

Un praticien a fait parvenir aux quartiers-généraux de l'A.D.C. la lettre qui suit (en partie), accompagnée d'une photographie d'un certificat de garantie. Le tout a été soumis au Comité d'éthique professionnelle pour connaître son avis.

"Un patient s'est présenté à mon cabinet, hier, se plaignant d'irritation à la gencive causée par des dentiers qui avaient été confectionnés ailleurs. Après avoir fait l'examen de sa bouche, je conseillai au patient des retouches à ses pièces pour soulager une pression indue à certains endroits. Le patient s'opposa à ces retouches en disant: "Mais, Docteur, vous ne devriez pas retoucher ces pièces, elles sont garanties." Avec un sourire, je tentai d'expliquer au patient qu'un dentiste ne pouvait pas garantir ses traitements. A ces mots, le patient me tendit un certificat des plus officiels, qui établissait que les dentiers étaient garantis contre toute détérioration pour une période de deux par un technicien et contre-signé par un fabricant de substance acrylique, signé par un technicien et contre-signé par un dentiste. J'ai tenu à vous fournir tous les détails pour vous montrer l'état d'esprit du patient, convaincu d'avoir des dentiers 'garantis'."

Déclaration du Comité d'éthique

Votre comité réalise que cette coutume se pratique dans certaines régions de ce pays. Le Comité tient à vous rappeler que cette façon de faire est non seulement contraire aux règlements d'éthique des collèges provinciaux, mais aussi aux principes de l'Association Dentaire Canadienne. Cet usage repose sur une présentation erronée des faits et ne devrait pas être encouragée par les membres de la profession dentaire. De plus, ces garanties sont dangereuses puisqu'elles supposent une cession des droits d'une profession à une entreprise commerciale.

Devons-nous accentuer les recherches dentaires?

En août dernier, une personne étrangère à la profession écrivait cette lettre dont nous citons des parties:

"Je m'excuse d'avance en vous faisant part des sentiments d'une grande partie de la population au sujet de la profession dentaire. Sans vouloir m'immiscer dans l'affaire d'autrui, je tiens à vous dire que, de plus en plus, un grand nombre de personnes sont convaincues que plusieurs membres de la profession dentaire ne semblent pas intéressés à exercer comme des médecins dentaires.

"Je veux dire que trop de praticiens limitent leur pratique à un aspect mécanique dans l'intention de se créer une vie facile; ceux-ci se désintéressent de l'état général de leurs patients et se soucient peu des relations qui existent entre la pathologie dentaire et les affections organiques; il va sans dire que ces dentistes ignorent les plus récents progrès de leur spécialité.

"Ces considérations peuvent s'étendre à toutes les autres professions et sont d'un intérêt général. À tort ou à raison, la profession dentaire est la cible de ces critiques, plus souvent que les autres professions.

"Plusieurs dentistes aimeraient exercer comme des médecins dentaires, mais ils sont d'avis que leurs connaissances sont insuffisantes pour réaliser ce rêve. En tant que professionnels, allons-nous nous reposer sur nos lauriers et ne pas réagir en face d'un tel défi? Ou, au contraire, allons-nous nous efforcer de promouvoir les recherches, surtout dans les sciences fondamentales; de mettre ces nouvelles connaissances au service de la pratique et montrer au public que nous sommes réellement des médecins dentaires, envisageant surtout la santé et le bien-être des populations?"

Méthode à suivre pour les articles de journaux et de revues

Pour veiller aux intérêts de la profession et pour transmettre au public des renseignements exacts au sujet de la dentisterie, il est désirable que les dentistes

adoptent une méthode uniforme pour la communication des nouvelles du genre aux agences de presse.

Le Comité des Relations extérieures de l'A.D.C. revisera avec plaisir tout article en préparation traitant de dentisterie, destiné au public; on n'a qu'à lui en faire la demande. Les suggestions suivantes sont offertes aux dentistes pour leur éviter certains ennuis susceptibles de se produire après la publication de ces communications.

Il est sage d'exiger du journaliste, au début de toute entrevue, la promesse formelle que l'article sera soumis au dentiste avant qu'il ne soit publié. Le reporter ou le scribe doit être averti que la copie sera soumise au Comité des Relations extérieures de l'A.D.C.

Il faut bien s'entendre sur la faculté qu'auront le dentiste et le Comité des Relations extérieures de retoucher l'article à leur discrétion.

La plupart des journalistes et des rédacteurs recevront avec plaisir cet endossement de l'Association Dentaire Canadienne avant la parution du communiqué, car ils connaissent trop bien les controverses qui sont soulevées à la suite de publication d'articles scientifiques. À toutes les réunions régulières annuelles, le Comité des Relations extérieures fournit à la presse des communiqués qui l'aident à préparer des nouvelles au point sur les travaux scientifiques qui y sont présentés. Les membres de l'Association qui sont interviewés par des journalistes, au cours de cette réunion, feraient bien de s'adjoindre l'assistance du Comité.

Invitation au premier congrès des universités pan-américaines

L'Ambassadeur d'Argentine au Canada, Augustin Mores Moartinez, invite les membres de l'Association Dentaire Canadienne au premier congrès dentaire des universités pan-américaines, qui aura lieu à Buenos-Aires, sous le patronage du gouvernement de l'Argentine et de la Fondation Eva Peron. Ce congrès est organisé par la Faculté d'Odontologie de l'Université de Buenos-Aires, du 4 au 10 mai prochain.

Statistiques au sujet du nombre des dentistes au Canada

Les tableaux ci-contre donnent des chiffres sur le nombre des dentistes du Canada. Tous les ans, le Secrétariat de l'Association compile ces statistiques pour renseigner ses membres.

Pour la première fois, le nombre total des dentistes dépasse 5,000.

Depuis 1938, le nombre est augmenté de 886. Entre 1938 et 1952, la population du pays s'est développée plus rapidement que le nombre des dentistes avec la conséquence que la proportion du nombre des dentistes en rapport avec le population est descendue le plus bas. Au cours de ces années, trois provinces, l'Alberta, la Saskatchewan et Québec ont légèrement

amélioré leur proportion, mais les autres provinces ont perdu du terrain.

En 1951 et 1952, cette proportion s'est avérée meilleure quoique le population se soit encore accrue. Cette amélioration est due au nombre considérable des diplômés de ces deux dernières années. En 1953, les diplômés reprendront leur nombre normal et il ne faut pas espérer une amélioration dans la proportion.

La diminution du nombre des dentistes à cause de mortalité ou de retraites demeure à peu près constante; elle a été de 2.3% en 1951.

Le nombre de ceux qui exercent une spécialité a augmenté sans cesse, chaque année, au cours de la dernière décade.

TABLEAU NO 1

Nombre des dentistes au Canada

(tel que rapporté par les régistres des provinces au 1er janvier 1952)

Province	Nombre de Dentistes			Durant 1951			Augmentation ou diminution Totale	Total de la proportion des Dentistes en rapport avec la population
	Hommes	Femmes	Total	Mortalités	Retraites	Additions	1938 ^b	
T.-N.....	20	1	21	0	0	0	+1	1/17038
I. du P.-E.....	29	0	29	0	0	1	-1	1/3372
N.-E.....	194	2	196	0	0	7	+36	1/3257
N.-B.....	110	0	110	5	1	13	0	1/4656
Québec.....	1204	4	1208	10	9	80	+334	1/3320
Ontario.....	2133	21	2154	40	15	152	+222	1/2118
Manitoba.....	260	1	261	3	1	10	+10	1/2957
Sask.....	216	2	218	1	2	15	+8	1/3801
Alberta.....	326	2	328	1	4	26	+92	1/2855
C. B.....	542	4	546	3	11	48	+184	1/2112
Total.....	5034	37	5071	63	43	352	+885	1/2740

Les chiffres utilisés pour indiquer les populations nous sont fournis par le Bureau Fédéral de la Statistique, en juin 1951.

*Les chiffres indiquant l'augmentation ou la diminution sont basés sur une comparaison avec l'année 1938, avant la guerre.

TABLEAU NO 2

Migration des dentistes canadiens durant 1951

A:	T.-N.	I. du P.-E.	N.-E.	N.-B.	Qué.	Ont.	Man.	Sask.	Alta.	C.-B.	E.-U.	Hong Kong	Afrique du Sud	N.-Z.
DE:														
T.-N.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. du P.-E.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N.-E.....	0	0	0	0	0	1	0	0	0	0	0	0	0	0
N.-B.....	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Qué.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ont.....	0	0	0	0	0	0	1	1	1	2	4	1	1	0
Man.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sask.....	0	0	0	0	0	1	0	0	2	0	0	0	0	0
Alta.....	0	0	0	0	0	2	0	1	0	1	3	0	0	0
C.-B.....	0	0	0	0	0	0	1	0	2	0	1	0	0	0



HEADQUARTERS BUILDING
OF THE CANADIAN DENTAL ASSOCIATION
L'ASSOCIATION DENTAIRE CANADIENNE

234 ST. GEORGE STREET, TORONTO, ONTARIO

SUCCESS

He has achieved success who has lived well, laughed often, and loved much; who has gained the respect of intelligent men, and the love of little children; who has filled his niche and accomplished his task; who has left the world better than he found it, whether by an improved poppy, a perfect poem, or a rescued soul; who has never lacked appreciation of earth's beauty, or failed to express it; who has always looked for the best in others and given the best he had; whose life was an inspiration; whose memory a benediction.

—BESSIE A. STANLEY





PRESIDENT

of the
Canadian Dental Assoc.

HAROLD M. CLINE

D.D.S., F.A.C.D.

Vancouver, British Columbia



PRESIDENT-ELECT

of the
Canadian Dental Assoc.

GUSTAVE RATTÉ

B.A., L.C.D., D.D.S., F.A.C.D.

Quebec City

Province of Quebec



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, JUNE, 1952

No. 6

Notes on the Development of the Canadian Dental Association

by DON W. GULLETT, D.D.S., F.A.C.D., Toronto, Ontario

LIKE practically all other national organizations The Canadian Dental Association encountered almost insurmountable difficulties in becoming a functioning organization. The geographical features of Canada lend themselves more to groupings than unification. The great distances handicapped the holding of meetings of a national character. However, with the growth of population and the increasing number of dentists the Association gradually increased in stature, until today the organization has reached a developmental stage dreamed of by its founders.

A meeting was called in Montreal at McGill University in September 1902 for the sole purpose of organizing The Canadian Dental Association. The leaders who attended this meeting might well be called the Fathers of Canadian Dentistry for they are well known even today. Nearly 200 dentists attended the meeting, which is remarkable for it represented a high percentage of the total number of dentists in Canada, probably 20%. The places they came from indicate that all parts of the country were represented. Among those present were the following: Dr. Frank Woodbury, Halifax; Dr. J. S. Bagnall*, Charlottetown; Dr. F. A. Godsoe, St. John; Dr. F. A. Stevenson, Montreal; Dr. E. Du-

beau, Montreal; Dr. J. B. Willmott, Toronto; Dr. A. E. Webster, Toronto; Dr. S. W. McInnis, Brandon; Dr. W. D. Cowan, Regina; and Dr. R. Nash, Victoria. Of these only one, Dr. E. Dubeau, is living today. The officers elected were: President, Dr. F. A. Stevenson of Montreal; Vice-President, Dr. J. B. Willmott of Toronto and Secretary, Dr. E. Dubeau of Montreal.

At this first meeting a code of ethics was adopted and two main activities were initiated, (1) the formation of a dental council on a national basis, the certificate of which would be recognized by all provinces (2) the formation of a Canadian Dental Corps. Both these activities have been objectives throughout the life of the Association. The second was partially achieved during the First Great War and finally achieved on a satisfactory basis through the continuous efforts of the Association at the beginning of the Second Great War. The first still remains to be finalized, although much success has occurred through the years in that the majority of the provinces found an acceptable basis almost immediately following the first meeting, in the formation of the Dominion Dental Council, latterly named the Dental Council of Canada. During the last few years the Association has endeavoured to develop a plan for the incorporation of a national dental examining board. Agreement has

*Father of Dr. J. S. Bagnall, who was later Secretary of the Association for a number of years.

been achieved with all the provinces and it is hoped that the plan will be implemented in the near future.

Undoubtedly finances proved to be the greatest stumbling-block in the way of progress for many years. The Association found it only possible to hold biennial meetings which greatly handicapped the work. The policy of holding meetings at centres across the whole country was adopted early and is still adhered to. During the years, meetings have been held at Halifax, Digby, Murray Bay, Montreal, Toronto, Hamilton, Ottawa, Winnipeg, Regina, Saskatoon and Vancouver at least once, and in some of these places on several occasions. On one occasion the meeting was held in Chicago. Attempts were made to hold annual meetings, but it was not until recent years that the regular annual meeting was established.

INCORPORATION

Under the statute incorporating the C.D.A. which step was not taken until 1942, the objects of the Association are stated to be:

(a) To cultivate and promote the art and science of dentistry and all its collateral branches, and to maintain the honour and interests of the dental profession;

(b) To conduct, direct, encourage, support or provide for exhaustive dental and oral research;

(c) To elevate and sustain the professional character and education of dentists;

(d) To promote mutual improvement, social intercourse and goodwill among the members of the profession;

(e) To enlighten and direct public opinion in relation to oral hygiene, dental prophylaxis, oral health and advanced scientific dental service;

(f) To disseminate knowledge of dentistry and dental discoveries;

(g) To have cognizance of and safeguard the common interests of the members of the dental profession;

(h) To publish dental journals, reports and treatises;

(i) To do all further or other lawful acts and things as are incidental or conducive to the attainment of the above objects.

ORGANIZATION

As stated earlier, the geography and great distances in Canada make the organization of a truly national association a difficult matter. The existence of two official languages also tends to create a barrier in uniformity of thought and action. Many Canadian Associations have found difficulty in establishing an organization, national in membership and character. During the past fifty years several methods of organization were attempted. In the first instance and for many years, membership was dependent upon the submitting of a small membership fee directly to the Association. The result was a small but faithful membership. At every meeting long discussions took place as to ways and means of improving the situation. The crux of the position was that members could not become enthused unless they could be shown the necessity of support and it was next to impossible to exhibit any services without financial support. Many officials of the Association laboured strenuously to find a formula to overcome the difficulty. After many trial methods the provinces came to the rescue through their legal bodies becoming Corporate Members of the Association and by annually submitting a list of names for membership for each province together with a grant based upon the number of members submitted. By this method, the Association has in its membership practically 100% of the dentists practising in Canada and also a workable budget. The Association publishes its Journal and all other publications in both French and English taking care of the bilingual character of the membership. Credit for the functional organization which exists today belongs to all those members who struggled in building the Association, often through difficult

periods and most certainly at great sacrifice to themselves.

POLICY

Essentially the Association has always adhered to the policy of dealing with matters which are national in character. The Association only acts in respect to purely provincial affairs when requested to do so by its respective Corporate Member. This policy functions in two ways. First there are those matters which are distinctly national and may be referred to the Association by a province. Secondly, the Association through its Board of Governors and various committees, sets up policies on matters related to the profession, which the Corporate members may or may not voluntarily adopt as they see fit. At first sight this method may possibly appear to be a loosely formed one. Experience has shown that due to the cooperative methods used in the formation of policy, and careful analysis of all points concerning the proposed policy at the Annual Meetings, the provinces invariably agree. It is this spirit of cooperation which is regarded as the greatest asset of the Association.

THE 1932 MEETING

The Annual Meeting in 1932 was an outstanding one in that the British Dental Association met with the Canadian Dental Association at Toronto. The calibre of this meeting may be judged by surveying the program, for the names of the participants stand out as leaders even today and the subjects are modern in concept. In part the essayists were as follows:

Dr. Charles Mayo—Mouth Conditions and General Health.

Dr. E. W. Fish—The Pathological Reactions in Enamel, Dentine and Pulp.

Dr. Donald M. Gallie—Conservative Treatment for the Removal of Dental Infection.

Dr. Edgar W. Paul—Radical Treatment for the Removal of Dental Infection.

Dr. W. J. Bell—The Place of Dentistry in a Public Health Program.

Mr. E. Y. Richardson—Dental Public Health Methods in the United Kingdom.

Mr. A. E. Rowlett—The Prevention of Caries.

Dr. S. Harry Thomson—Dental Public Health Methods in Canada.

Dr. Martin Dewey—The Prevention of Irregularity of Teeth.

Dr. H. K. Box—The Prevention of Periodontitis.

Mr. J. P. Crocker—Full Dentures.

Dr. H. J. Merkeley—Fixed Bridges.

Dr. W. E. Cummer—Partial Dentures.

At this meeting the British Dental Association presented to the Canadian Dental Association a suitably engraved gavel and block fabricated from parts of Nelson's ships which is one of the Association's treasures.

DENTAL PUBLIC HEALTH

The interest displayed at the meetings in dental public health has been unabating. Some idea of the early aims in this important matter can be gained by giving the list of objectives stated in the record of the third meeting. (1906):

1. An Act requiring the periodical examination of the teeth of school children and providing for the appointment of dentists for that purpose.
2. Revision of school books with regard to hygiene of the mouth and teeth.
3. Distribution of suitable booklets in the public and private schools and large military camps.
4. Special paper on subject of Dental Hygiene in examination for teacher's licences.
5. Special instruction in this subject in normal schools.
6. Lectures before teachers' associations and school children in public and private schools.

In part, at least it will be agreed that these stated objectives possess a modern ring. The Association has always

actively supported and participated in support of dental public health activities. In 1908 The Canadian Oral Prophylactic Association was recognized and requested to activate the principles on dental public health adopted at the meeting. This organization continued to function, although with changing objectives, until the early forties. The Association's Committee on Dental Health cooperated with this body for some years, but with the formation of the Canadian Dental Hygiene Council in 1924 gave support to its educational effort. The Canadian Hygiene Council functioned with considerable success, establishing the foundation of dental public health as it exists in Canada today. The charter of this organization was surrendered in 1948 and the terms of reference of the C.D.A. Committee on Dental Public Health were revised to undertake the full duties in respect to dental public health matters.

EDUCATION

It is notable that from the formative times and all through the history of the Association the deans of the dental schools have taken a most active part in its activities. One-fifth of the Presidents of the Association have been deans of dental schools. Probably for this reason the committee on dental education was one of the first established and at all meetings the interest in educational matters is exemplified. Gradually the great need for increased activity by the Association in this field of endeavour was recognized. Eventually the committee was renamed the Council on Dental Education. The Council has provided a forum for discussion of the problems of education in respect to Canadian Dentistry, not available previously. Policies established by the Council have been voluntarily adopted by the dental schools to a large extent resulting in improvements of curricula, academic standards and teaching methods. With the financial assistance of the Kellogg Foundation, the Council is

engaged in a survey of dental education in Canada which it is considered will make for further progress in improving educational standards in dentistry.

ROYAL CANADIAN DENTAL CORPS

The Boer War ended a few weeks previous to the first meeting of the Canadian Dental Association in 1902. Undoubtedly for this reason the formation of a dental corps was one of the principal subjects discussed at the meeting. The experiences of the Canadian military forces in South Africa related at the meeting, led to active effort toward the establishment of a dental corps. The effort was continuous, being a subject of report at practically every annual meeting. Approaches were made to the proper authorities but action was delayed until the outbreak of the war of 1914-18. At the annual meeting May 1914, it was reported that renewed efforts had been made to point out the necessity to the authorities, but no action had been taken by them. With the outbreak of war in August of the same year, the Association was then approached for assistance. Success in having the Corps established on a permanent basis is reported at the 1916 meeting. Following the war the permanency of the Dental Corps evaporated. The minutes indicate continued effort. From the meeting in 1927 a strong recommendation was sent to the Minister of Defence requesting "the appointment to the permanent force of at least one dental officer to each military district". With no action apparent by the late thirties decision was made to set up a special committee on the organization of a dental corps in order to avoid being unprepared as occurred in 1914 in the event of war emergency. As a result, a detailed plan developed by this Committee was in readiness and put into effect with declaration of war in 1939. The secretary of this special committee was recommended by the Association as director. Under his direction

the service rendered by the Corps during the war was recognized by the sanction of the use of the word "Royal". Since the war the Corps has continued as an integral part of the military forces, bringing to fruition the extended effort of the Association.

RESEARCH

Early in the history of the Association attempts were made to stimulate research in dentistry. Research competitions were established. A few years later sanction and support was given to the formation of the Canadian Dental Research Foundation by federal charter, which still exists today under control of the C.D.A. Research Committee. This organization has done splendid work in encouraging research. Perhaps the greatest step in the research field was taken in 1944 when the Association was successful in having an Associate Committee on Dental Research established with the National Research Council. All early efforts in the research field were hampered by the difficulty in securing funds, but since the National Research Committee has been established funds have been available. The need was then created for qualified personnel to do research and the Research Committee of the Association has had as a major activity, the selection and training of potential research workers. The success of this effort can be measured by the increased amount of dental research taking place in Canada today.

THE JOURNAL

Persistent effort on the part of a few individual members was responsible for the establishment of the Journal of the Association. At many Annual Meetings efforts were made to create an official organ which would represent the profession. The difficulties appeared insurmountable until a few men undertook the responsibility with rather insecure financial support from the Association. The first issue appeared in January 1935 and the trials of a new publication were ex-

perienced. However, through the efforts of faithful editors the Journal has become a publication recognized the world over, reflecting the progress of Canadian Dentistry.

HEALTH INSURANCE

The first report upon the subject of "State Dentistry", as the Committee was then called, was presented at the 1928 meeting in Regina. It was stated that the governments in Canada were already considering the problem and necessity for study of the subject was cogently pointed out. At the next following meetings the reports of this Committee were presented, but no definite policy was adopted. A noticeable action was taken in 1932 after lengthy discussion by the Board. The resolution passed reads "that the Board of Delegates go on record as being in favour of the idea that dental treatment should be made available to all the people of Canada, either in a private office, or a clinic. Further, that all the people of Canada should be informed in regard to mouth health, so that it will be possible for them to take the necessary steps to protect themselves from dental diseases and what they should know, as individuals, they ought to do to try to avoid these diseases".

In 1938 a presentation on dental health was made by the Association before the Royal Commission on Dominion-Provincial Relations, of which health was one subject of inquiry. In this submission the necessity for increased research and dental health education was stressed and among several recommendations was one recommending that the Federal Government assume the responsibility for the provision of necessary dental treatment for all young people in Canada from the age of two to fifteen years inclusive, whose parents could not provide these services for them. During the next few years reports were made summarizing studies made of development of health plans in different countries. Early in 1942 a

MEETINGS HELD, PRESIDENTS AND SECRETARIES

MEETINGS	PLACE	PRESIDENT	SECRETARY
1st meeting, Sept. 1902	Montreal	F. A. Stevenson, Montreal	E. Dubeau, Montreal
2nd meeting, Sept. 1904	Toronto	J. B. Willmott, Toronto	A. E. Webster, Toronto
3rd meeting, 1906	Montreal	E. Dubeau, Montreal	C. F. Morrison
4th meeting, Aug. 1908	Ottawa	S. W. McInnis, Manitoba	Q. L. Spaulding
5th meeting, May 1910	Toronto	A. E. Webster, Toronto	J. G. A. Gendreau
6th meeting, June, 1912	Hamilton	W. D. Cowan, Regina	F. W. Barbour, Fredericton
7th meeting, May 1914	Winnipeg	G. F. Bush, Winnipeg	M. H. Garvin, Winnipeg
8th meeting, Sept. 1916	Montreal	F. W. Barbour, Fredericton	F. Coghlin, Guelph
9th meeting, Aug. 1918	Chicago	Joseph Nolin, Montreal	S. W. Bradley, Ottawa
10th meeting, Aug. 1920	Ottawa	Frank Woodbury, Halifax	S. W. Bradley, Ottawa
11th meeting, May 1922	Toronto	H. F. Whittaker, Edmonton	E. A. Grant, Toronto
12th meeting, Aug. 1924	Vancouver	S. W. Bradley, Ottawa	E. A. Grant, Toronto
13th meeting, Aug. 1926	Halifax	G. K. Thomson, Halifax	J. S. Bagnall, Halifax
14th meeting, June 1927	Toronto	J. W. Clay, Calgary	J. S. Bagnall, Halifax
15th meeting, June 1928	Toronto	J. W. Clay, Calgary	J. S. Bagnall, Halifax
16th meeting, June 1929	Regina	F. J. Conboy, Toronto	J. S. Bagnall, Halifax
17th meeting, Oct. 1930	Montreal	M. H. Garvin, Winnipeg	J. S. Bagnall, Halifax
18th meeting, Aug. 1932	Toronto	A. W. Faulkner, Halifax	J. S. Bagnall, Halifax
19th meeting, May 1934	Toronto	Phillipe Hamel, Quebec	J. S. Bagnall, Halifax
20th meeting, Oct. 1936	Montreal	G. L. Cameron, Swift Current	J. S. Bagnall, Halifax
21st meeting, July 1938	Vancouver	R. L. Pallen, Vancouver	J. S. Bagnall, Halifax
22nd meeting, May 1940	Toronto	S. A. Moore, London	J. S. Bagnall, Halifax
23rd meeting, May 1942	Toronto	W. W. Woodbury, Halifax	J. S. Bagnall, Halifax
24th meeting, Oct. 1943	Montreal	A. L. Walsh, Montreal	Don W. Gullett, Toronto
25th meeting, June 1945	Winnipeg	R. A. Rooney, Edmonton	Don W. Gullett, Toronto
26th meeting, May 1946	Toronto	H. W. Reid, Toronto	Don W. Gullett, Toronto
27th meeting, June 1947	Digby	V. D. Crowe, Truro	Don W. Gullett, Toronto
28th meeting, June 1948	Murray Bay	J. K. Carver, Montreal	Don W. Gullett, Toronto
29th meeting, June 1949	Saskatoon	H. J. Merkeley, Winnipeg	Don W. Gullett, Toronto
30th meeting, June 1950	Toronto	G. V. Fisk, Toronto	Don W. Gullett, Toronto
31st meeting, Sept. 1951	Ottawa	R. P. Lowery, Toronto	Don W. Gullett, Toronto
32nd meeting, June 1952	Vancouver	H. M. Cline, Vancouver	Don W. Gullett, Toronto

critical period was reached when the Federal Government made request of the Association for a definite proposal for the cooperation of dentistry in proposed legislation for health insurance. The Association chose to cooperate and after strenuous effort presented a plan based on prevention through research, health education, and treatment services for the younger age groups. The legislation was drafted, but never introduced in the House. Since that time, the studies of this important subject have been activated and the present Health Insurance Studies Committee is one of the more important Committees of the Association.

THE HEADQUARTERS

The spirit of the Association possibly never will be exemplified better than in the recent acquirement of a headquarters building. The work had been hampered greatly for many years through the absence of adequate office space. For several years the provision of suitable offices had been dis-

cussed, but at the 1950 meeting through the inspiration of a few members, definite action was taken in setting up a special fund for the purpose. Within a matter of weeks monies were made available in sufficient amounts—every Corporate Member subscribed, each according to their means in a purely voluntary manner. The result is that Canadian Dentistry now functions in a building which does credit to the profession.

The outline given above should not be considered as a history of the C.D.A., such must be left for book space at a future date. A few details are given which may prove interesting to the reader. The position gained by the Association should not be considered from a materialistic view point, but rather in terms of development of a spirit of national unity among members of the profession. In all the work the public good stands foremost in thought and action in an effort to make the best possible dental service available to Canadians.

Author's Note:

In the first draft of this presentation an endeavour was made to give credit lines to individual members who have contributed of their time, ability and effort so greatly. It was found impossible in the available space to carry out this intention fairly, so all names have been deleted except the representatives at the first meeting and those appearing on the program of the 1932 meeting.

234 St. George St.,
Toronto, Ont.

The practitioner of a profession must continue to grow if he would be successful. On graduation day he has acquired merely an introduction to his life work; he is little more than a journeyman who has completed the first stage of his education; there is much more that he will have to learn in order to become a master. Soon he discovers also that much of what he has learned is outmoded because new facts, principles and methods of service are continually becoming available.

In order that he may attain success, the professional man has at hand several means such as society meetings, clinics, graduate and postgraduate courses, and extension courses. The movie, the radio, and the telephone are being employed to help him, and shortly television and other inventions will make their contributions. Our times not only make the professional man's improvement possible; they make it absolutely necessary and obligatory upon him.—Lloyd E. Blauch, Ph.D. in Jour. Am. College of Dentists.

"Happiness is the art of never holding in your mind the memory of any unpleasant thing that has passed."

The flower that follows the sun does so, even on cloudy days.

Dental Education in Canada

by J. STANLEY BAGNALL, D.D.S., F.D.S.R.C.S. (Eng.) F.I.C.D., F.D.S. (Ed).

Dean, Dalhousie Dental College

THE growth and development of dental education in Canada has closely followed the pattern set in the U.S.A. The dental teachers of the early Canadian schools received their dental education in the U.S. A number of graduates of English and Scottish medical schools were associated with these U.S. dental graduates. This resulted in a more general appreciation of the importance of adequate instruction in the basic medical science subjects in Canadian dental schools than in those of the U.S. The early schools of the U.S. were completely divorced from the related medical school. It was as late as 1926 that Dr. W. J. Gies stated in his "Report of the Carnegie Foundation on Dental Education in the U.S. and Canada" that: "the desirability of teaching the medical sciences to students of dentistry was appreciated by the pioneers in dental education, and such instruction has been given in all schools; but dentistry's realization of its need for the medical sciences has never been keen enough to give to that instruction the quality it bears in medical education." In contrast, there were in Canada at least one or two schools which were giving courses in the medical sciences at the same level as that given to the students in the medical school. It would seem that there were other ways in which our Canadian system might have derived advantage from a central position between the U.S. on the one side and Europe on the other. Instead, we have too frequently followed the lead of those in the U.S. who have confused the diverse aims of "training" and of "education." There has tended to be over emphasis on methods and equipment, designed to give a high standard of technical training, and not

enough regard for the old world concept of a sound educational discipline.

Most of the United States dental schools were started as proprietary schools. They were run as business ventures where the income was derived from student fees and operation of the dental infirmary. The staff was paid out of these receipts. This resulted in a heavy program of clinical operations which set the pattern of dental education for many years. While one or two of the Canadian schools started in this way, the high calibre of the men associated with their establishment kept them free from the abuses associated with most schools of this type in the early years of dental education in the United States. Some of the most caustic criticisms in reports on dental and medical schools in the United States were directed against those proprietary schools, where the profit idea was paramount. It was not until a number of good schools became integrated into universities that steps were taken to broaden and improve the quality of dental education.

When formal dental education was started in Canada the two-year course was the general requirement. This was later extended to three and then four years of professional training. The early requirements for admission were elastic, without definite matriculation standards. In some of the early schools a period of apprenticeship with a dentist was required previous to graduation. There were no regulations to govern admission to dental practice and most dental practitioners of the period had only received an apprenticeship training. This was the situation when the first attempt was made to start a dental school in Canada, with the opening

of a short lived school in Toronto, in 1869. This was a rather significant period in dental education on this continent. The first dental school had been opened in Baltimore in 1840, with a teaching staff of two dentists, Hayden and Harris, a physician and a surgeon. This was a proprietary school and operated under conditions similar to that in the medical school, but the two were separate and distinct. The first dental school in a university and associated with a medical school, was established at Harvard in November, 1867. There were, at that time, four other schools in existence in the United States, but none was associated with a medical school. The first laws to regulate practice were just coming into force and by the time the Toronto School was opened, three States of the Union had recognized this need and had passed Acts to regulate the practice of dentistry.

The organization of the "Association of Colleges of Dentistry", in the United States in 1866 was the initial attempt to form a cooperative group of Colleges of Dentistry. This effort was short lived and broke up in 1868 over a dispute arising from the practice of indiscriminate granting of degrees. It was succeeded by the "National Association of Dental Examiners", in 1883. This required that no member college should grant a diploma for less than two full regular courses of lectures, or the equivalent of one full course and five years practice. The early lecture courses were to be of not less than five months duration and taken in separate years. The "National Association of Dental Faculties" (1884-1923) was formed by a group of eleven United States dental schools and, at a later date, representatives of the Canadian schools took part in the proceedings. The admission requirement to dental schools was originally set as "a good English education". The member schools were required to "adopt a graded course of instruction and an intermediate exam-

ination". The Association, for the forty years of its existence, devoted its attention primarily to administrative functions and left the immediate problems of teaching to another organization, the "American Institute of Dental Teachers".

An increasingly severe cleavage developed early in the history of the Association between the powerful commercial dental schools on the one hand, and the schools conducted by State universities and endowed schools on the other hand. This eventually led to the formation of the "Dental Faculties Association of American Universities" in 1908.

In the meantime, entrance requirements to dental schools had been raised to that of a certificate of entrance to the first year of a high school in 1897, to entrance to second year high school, effective 1899-1900; entrance to third year, effective 1902-3 and effective 1910-11 each student of the schools in the Association shall have completed three years of high school, or its equivalent, before entering dental school. The requirement for the dental degree in 1885-6 had been two regular terms of not less than five months each in separate calendar years. Then, effective in 1891-2, to three years of not less than five months each and by 1903-4 to the requirement of four full courses of not less than seven months each.

The American Institute of Dental Teachers was organized in 1893 and continued until 1923. The objects of the Institute were the "inter-change of thought and the improvement of the technique teaching in American Dental Colleges". Membership was originally limited to teachers of dental technique. This conception of dental education soon broadened to include the medical science subjects of Physiology, Pathology, etc. This organization was disbanded in 1923, when it united with some others to form the present "American Association of Dental Schools". This was begun in

1923 with an initial membership of thirty-nine United States and five Canadian schools.

The period 1870-1910 saw the disappearance of the apprenticeship method of entering practice; the requirement of a university matriculation standard for entrance; and, in most schools, four professional years of dental study.

It is not possible to set down definite dates for the development of distinct trends, but for the profession as a whole the realization of the need for some reorientation in thinking in terms of dental education may be associated with the Sir William Hunter lectures in McGill in 1910. The impact of World War I on dental education was very great. There was not at that time, as in World War II, a realization by the Government that specialized types of training were essential and should be interfered with as little as possible. The result was that all schools suffered greatly in attendance. With the ending of the war and return of the troops, classes in medical and dental schools were overcrowded. This seems to have accelerated a number of changes in dental education which had been under discussion for some time. There was a growing realization in most schools that there should be less emphasis in dental education on technical procedures and more on dentistry as a health service. This increased the requirements for instruction in the medical sciences, which were also taking a larger place in medical education at the same time. The medical schools had already realized that changing conditions called for better educational preparation of the students, so that medicine and then dentistry added first one and later two years of pre-professional training, in a selected group of subjects of the B.A. or B.Sc. course, as a preliminary requirement. This change, with some minor differences, was completed in all Canadian schools by about 1927. These courses were designed to

extend the scientific and cultural background of the student and, in most of the schools, they were taken as regular university classes, before the individual enrolled as a dental student. Another effect of these changes was to speed up the adoption of dental schools by universities. The oldest school was the last to make the change and when the Royal College of Dental Surgeons became the Dental Faculty of the University of Toronto in 1925, all Canadian schools had become integrated university faculties.

The first attempt to carry out a definite school system of dental education in Canada was made in Toronto in 1869. In that year the Royal College of Dental Surgeons of Ontario, which was the Provincial Legal Body, established a school with a class of two students. Arrangements were made with the medical college of Victoria University for instruction in anatomy, chemistry and materia medica in that college, while instruction in dental subjects was given in rooms rented for the purpose. The school was discontinued at the end of its first year, as a result of financial difficulties.

Then, in 1875, the direct precursor of the present school was started under the general direction and supervision of the Directors of the Royal College of Dental Surgeons, which made an annual grant of \$150.00, to supplement the revenue derived from student fees. This school was organized by J. B. Willmott, D.D.S. and Luke Tesky, M.D. and opened in two rented rooms at 46 Church Street with eleven students. These received their dental diplomas in 1876. The increasing number of students made it necessary to make several moves to larger quarters, until in 1896 a four story college building was opened at 93 College Street. This building moved to 230 College Street and enlarged in 1920. In the period 1875 to 1893 the school was conducted under the auspices of the Royal College of Dental

Surgeons, but all fees went to the Faculty, who assumed the entire financial responsibility. By 1893 the number of students in attendance had reached 90. The financial obligations for assistance from the organized profession had increased accordingly and in that year the school became an integral part of the Royal College of Dental Surgeons.

In 1888 the College became affiliated with the University of Toronto, which established the degree of Doctor of Dental Surgery. This arrangement continued until the College became the Faculty of Dentistry of Toronto University in 1925. Up to 1906, the examinations for the degree of Doctor of Dental Surgery and for the title of Licentiate of Dental Surgery were held separately. From 1906 to 1925 the University and the College conducted joint examinations. Since 1925 the University has conducted all examinations and each year forwards to the College a list of those candidates, for the Ontario licence, who have met the prescribed requirements.

The beginnings of dental education in Quebec differed from that of the other provinces, in that special provision had to be made for bi-lingual studies. The College of Dental Surgeons of the Province of Quebec began as a Board of Dental Examiners and was organized in 1869. Previous to the formation of the dental school, candidates for practice served a period of apprenticeship and, in addition, were required to take short courses in anatomy, chemistry and physiology. A series of head and neck dissections were taken at either Laval or McGill and examinations given in these medical science subjects. Attempts were made, without success, to interest Laval and McGill to undertake dental education. Then, in 1892, the Board of Examiners organized a Dental School with W. George Beers, D.D.S., as Dean. The technical and some basic subjects were taught in this school; while the academic preparation was

provided for English speaking students by Bishop's College and for the French speaking by Laval University. At about the same time, the University of Bishop's College at Lennoxville, which had an affiliated Faculty of Medicine in Montreal, began the organization of a Department of Dentistry in that Faculty. In the spring of 1893 the two projects were united to become the Dental College of the Province of Quebec. This was conducted under the supervision of the Board of Examiners of the Provincial Dental Association and in affiliation with the Medical School of Bishop's College. The first graduates were given a D.D.S. degree. The arrangement made in the enabling Act of the Quebec Parliament was that instruction should be given in French and English in duplicate sections of the college. This plan of bi-lingual instruction developed unexpected mechanical and financial difficulties. These finally resulted in a decision for the establishment of French and English schools. In 1903, a complete dental course was organized for French speaking students at Laval University through the efforts of Drs. Dubeau, Nolin and Gendron. The Laval school opened with two students, who graduated in 1905. In 1921 this school became the Faculty of Dental Surgery of Montreal University. It is the only school in the Western Hemisphere to give dental instruction in French.

It was planned to open the English school at McGill the same fall, but it is not clear from the available records just when the school opened. The Carnegie Report states that there was a disagreement with the Medical Faculty over the award of a Doctorate degree in Dentistry and that the Dental School did not open until 1906, with the first graduates in 1908 receiving the degree of Master of Dental Surgery. On the other hand, a McGill calendar of 1911-12 places the opening date as 1903. The school was organized as the Department of Dentistry of the

Medical Faculty, which provided the necessary lecture room and laboratory space. Clinical teaching was first given in a clinic conducted by the Quebec Dental Association. Some years later, larger quarters were assigned in a portion of the medical buildings and a dental teaching clinic was established in the Montreal General Hospital. There were no graduates in 1909 and commencing with the class of 1910, all graduates were given the DDS degree. In January, 1920, the Department of Dentistry became the Faculty of Dentistry of McGill University, with Dr. A. W. Thornton as Dean.

The first definite steps leading to the formation of a dental school in Halifax were taken by a group, under the leadership of Dr. Frank Woodbury, at a meeting of the Nova Scotia Dental Association in September, 1905. A number of resolutions were passed at that meeting. This was followed by the necessary amendments to the Nova Scotia Dental Act, which were passed by the Provincial Legislature in 1907, authorizing the establishment of a dental school, either independently or in affiliation with a university or college.

The Maritime Dental College was opened with an initial class of five students in 1908, with Frank Woodbury, D.D.S. as first dean. The school was affiliated with the Halifax Medical College and Dalhousie University. Instruction in the science subjects was given by the university and in the medical science subjects at the Halifax Medical College with the medical students. Courses which were taken with the medical students were identical for some years and later modified to some extent. The dental courses were given in a couple of rooms set apart by the University. In 1912 the

school became the Faculty of Dentistry of Dalhousie and was the first Canadian dental school to be a Faculty of a University. The first class graduated with the degree of D.D.S. from Dalhousie University, in 1912.

The initial steps towards the formation of a dental school in Alberta were taken in 1916, when the Senate of the University of Alberta passed a resolution providing for instruction in the first two years of the dental course. Arrangements were made with the dental schools of Toronto and McGill that the final two years of the course could be taken in those schools. The plan was held up as a result of war conditions and did not get under way until the fall of 1918. Drs. Bulyea and Fuller were appointed instructors in dental subjects in 1919-20. The school was first organized as a department of the Medical School of the University of Alberta. In 1921 teaching was expanded to three years and in 1924 to four years. It was then re-organized as the School of Dentistry with Dr. Bulyea as Director. In 1944 the school became the Faculty of Dentistry of the University of Alberta with Dr. W. Scott Hamilton as the first dean.

The formation of additional Canadian schools has received consideration, but at the present time, the only ones which seem to be receiving more or less serious discussion are: Faculties of Dentistry at Laval University in Quebec, University of British Columbia and Western University in London, Ontario.

(Grateful acknowledgement is made for information obtained from: Bulletin number nineteen of the Carnegie Foundation; "Dental Education Today" by Horner, University of Chicago Press, 1946; Annual Reports of the Nova Scotia Dental Association; Booklet, Alberta Dentistry, 1948; the Faculty Calendars of Toronto and McGill; Dean Mowry of McGill; Dr. W. W. Woodbury and others who have offered helpful suggestions and criticisms.)

It is reasonable to have perfection in our eye that we may always advance toward it, even though we know it can never be reached.—Johnson.

The History of Dental Research in Canada

by J. H. JOHNSON, D.D.S., Toronto, Ontario

DENTISTRY owes its origin as a profession to the ingenuity and originality of its pioneers, but since their early work was carried out in a highly individualistic and secretive manner the records are lacking, but it is reasonable to suppose that our Canadian pioneers did their share of private experimentation during the evolutionary stages of dentistry. Chittenden, recalling the days of a hundred years ago, when he began the study of dentistry, stated that there was really very little to study beyond watching his preceptor in his operating room and laboratory and receiving his oral instruction. "The only book he had for me to study was Harris' Practice, then about one fourth of its present size".

When the Canadian Dental Association was organized in 1902 no provision was made for a Committee for Dental Research, but the following year the Canadian Oral Prophylactic Association was founded through the leadership of Dr. A. J. McDonagh. As it developed later this group was to be a pioneer in health education and was to give substantial aid to dental research.

In 1909 the President of the Canadian Dental Association made the recommendation in his presidential address that a Research Committee be established, but this was not to occur until many years later. Two years later "Oral Health" outlined the investigations that the individual Faculties were carrying on and emphasized the advantage of a National Committee for this purpose. It was not until 1912 that the Dominion government began to consider "the establishment of a Department of Health".

In 1913 Dr. C. N. Johnson* was vigorously championing the formation of an "Institution of Dental Research" in the United States and stated that "it was really the responsibility of gov-

ernments, but so far they had not been sufficiently educated and had only got as far as to look after the welfare of hogs, cattle and sheep". The same year, under the chairmanship of Dr. Weston Price*, the "National Dental Scientific Research and Foundation Commission" was founded to raise funds for dental research in the United States. The same year also the Ontario Dental Society established a "Commission on Research" but reported that no funds were available for its activities.

The next year the Canadian Oral Prophylactic Association donated \$1000.00 to the Executive of the Canadian Dental Association for prizes and "suitably inscribed medals" for the encouragement of dental research in Canada. Drs. Arthur Black, Edward Kirk, C. N. Johnson and Leon Williams were to act as judges.

The same year Dr. Harold Box graduated in dentistry at Toronto, a fact that cannot be passed over without notice. As soon as his final examinations were finished he disappeared into the woods that he loves so well, for a well-deserved holiday, and later on his return to civilization found five long distance calls and two telegrams awaiting him, requesting his return to Toronto. On the evening of his return he was asked to be present at a meeting at 55 College Street, at the home of Dr. Joseph Graham where, among others, Drs. Webster, McDonagh, Graham and Secombe were present, and where he was duly offered a one thousand dollar scholarship in Pathology for the ensuing year, through the generosity of the Royal College of Dental Surgeons. At that time Dr. Box had planned to go to Edmonton to practise, and already had his office

*It is worthy of note that both Dr. Weston Price and Dr. C. N. Johnson referred to as initiating dental research in the United States, were former Canadians.

arrangements under way. However, after consultation with his family, he decided to accept the award and spent the next year as Research Fellow in Pathology with Professor J. J. McKenzie in the Department of Pathology of the University of Toronto, where a sure foundation for his future research was laid.

It is a matter for fanciful conjecture as to what the course of his life would have been if he had gone into practice, but in any event Edmonton's loss was Toronto's gain, and the profession is under a deep debt of gratitude, not only to Dr. Box, but also to the men who had the foresight to recognize genius when they saw it in its early stages. Since that time his brilliant research mind has flashed like a beacon in Canadian dental research, leading, stimulating and encouraging his fellow travellers. The first of his publications, which since that time have grown to over sixty, appeared in 1915, entitled "Pathological and Bacteriological Considerations of Interest to the Dentist." His first published sentence stated that "The object of this paper is to endeavour to bring the pathological laboratory before the profession", a prophetic objective in the light of what he has since accomplished. The next year he received a half-time appointment in the Department of Pathology of the Royal College of Dental Surgeons, and "Oral Health" remarked editorially that "Canadian dentistry, with the blood of youth in its veins, will bear its own share of the burden and make whatever sacrifices are necessary for the early establishment of an aggressive, organized plan for dental research."

The Canadian Dental Association in session in Montreal in 1916 appointed its first Research Committee, with representation from each of the Provinces, and it was agreed that the Ontario Committee should act in an executive capacity. This Committee recommended that each dental college be assigned a specific research problem to be worked out in their own

laboratories. Later that year the results of the research prize-competition, which had been arranged jointly by the Canadian Oral Prophylactic Association and the Research Committee of the C.D.A., were announced. The first award was won by Dr. H. K. Box, Dr. M. H. Garvin was second and Dr. W. E. Cummer was third.

In 1918 Dalhousie reported interesting work on root canal preparation, treatment and filling. Various methods had been subjected to rigid microscopical examination, the results tabulated and conclusions drawn. At Toronto Dr. Box had reported upon "The Histopathology of Alveolar Abscess." Dr. Lancaster was supervising the expenditure of a grant of \$100.00 from the R.C.D.S. upon an investigation of the "Presence of Free Sugar in Saliva Under Various Conditions"—a rather meagre monetary amount by present-day standards.

The next year the Research Committee of the C.D.A. decided that a trust fund should be established for dental research in recognition of the sacrifices that dentistry had made in the Great War. It was proposed that Dentistry should raise a fund of \$50,000.00, with each dentist donating one per cent of his income for one year, and that the public be asked to donate a similar amount. It was thought that the laity might more readily donate to a Foundation than they would to a dental society, and for this reason the Research Committee of the Canadian Dental Association was incorporated as the Canadian Dental Research Foundation. The Foundation became the official research organization of the Canadian Dental Association, and the executive officers at its inception were Dr. R. G. McLean, President, Dr. W. E. Cummer, Honorary Treasurer and Dr. Wallace Secombe, Honorary Secretary. The students at the Royal College of Dental Surgeons clubbed together and donated \$1500.00 to this fund, and the Ontario Dental Association also gave a donation running into four figures. The National Trust

Company was appointed to act as official trustee.

In 1920 Dr. Box was honoured in New Orleans by the American Academy of Periodontology, who elected him its First Fellow, and in this year also the University of Toronto conferred upon him the degree of Ph.D. in Pathology, the first Canadian dentist to be so recognized. It is thought that Dr. Box was the first Canadian individual to receive a Ph.D. degree in Pathology. He was then given the Chair of Dental Pathology and Periodontology at the Royal College of Dental Surgeons.

In 1921 the Canadian Oral Prophylactic Association was actively supporting the Department of Dental Research at the Royal College of Dental Surgeons at Toronto. Its Educational Committee was also active, and at that time was laying the foundation for its outgrowth, the Canadian Oral Hygiene Council, for whom Dr. Harry Thomson was to render such outstanding service. Under the inspired leadership of Dr. Gies the International Association for Dental Research was taking form and in May, 1921 the Toronto section was organized with Dr. A. J. McDonagh as its President. The Toronto Section was one of the four charter sections of the Association, the other three being Chicago, Boston and New York. Drs. McDonagh, Broughton, Webster, Arthur Ellis, Mason, Thompson, Grieve, Paul, Box and Husband were its original membership.

The Canadian Dental Research Foundation reported in 1923 that there had not been much activity because "it was hard to get money from dentists because dentists found it hard to get money"—a situation not entirely peculiar to the year 1923. Donations were reported at that time from the Dominion Dental Council of \$600.00, from the Royal College of Dental Surgeons of \$400.00 and smaller grants from the Manitoba Dental Association, the Calgary Dental Society and the Dental Study Club of Montreal. Grants were to follow later from the British

Columbia College of Dental Surgeons, the British Columbia Dental Association and the Alberta Dental Association. The Foundation had published the works of Dr. Box and reported an active demand from all parts of the world, the *Lancet* remarking editorially that "Dr. Box's work is of considerable importance and sheds valuable light on the pathology of periodontitis and pyorrhoea".

In 1927 two Fellowships of \$250.00 each were established at the Faculty of Dentistry, University of Toronto, one donated by the Ash Temple Company and the other by the Ontario Dental Association. They were established on the basis of hospital internships with the proviso that the recipients must have four hours per day free to devote to dental research. At this time Dr. Box was made Honorary Consultant in Oral Hygiene to the Department of Health of the Province of Ontario, and was appointed Research Professor of Periodontology, a position he holds at the present time. Largely through the impact that his activities had made on the provincial government, the Ferguson Cabinet made a grant of \$25,000.00 available to the Faculty of Dentistry, University of Toronto, for Research Fellowships. Five Fellowships of \$1,000.00 each were offered each year for a period of five years, but unfortunately the grant was not repeated, and the Fellowships terminated in 1932. However, the stimulation of this research program has been reflected to the profession by the recipients, and many of the contributions to our dental literature have had their origin from this group.

The Research Committee of the Canadian Dental Association submitted an extensive report in 1929. A questionnaire with ten interrogations had been distributed to the provinces, and the replies showed that Nova Scotia and Ontario were the only provinces where research organizations were functioning. Dalhousie was investigating "Mucin in its Relation to Tooth Decay" and "The Physical Prop-

erties of the Maritimes Dental Plasterers". The Halifax branch of the International Association for Dental Research was reported active. The Faculty of Dentistry at the University of Toronto reported seven research projects under way there, and that the International Association for Dental Research was active with Dr. Webster as President. The following year this international group met in Toronto for its general meeting, with Dr. Webster in the Chair, not an inconsiderable honour and accomplishment on his part. He lucidly clarified the status of this group, stating that "it was not a group to solve dental research problems or to set them for others to solve, but rather a clearing house for those who do research work—provided an excellent journal without advertising—exclusively for publishing research. They did not seek to collect money for dental research, nor spend money for research, but it did seek by every other possible means for the encouragement of research by supporting every useful effort in the direction of newer knowledge."

The Research Committee of the C.D.A. further reported that it had approached the Ontario Research Commission and the National Research Council for financial assistance without success. The N.R.C. had carefully considered the matter but could not make the grant requested. "The Council did not feel that it would be justified in establishing a precedent by granting public funds for the general purpose of research in any field of science, but if any qualified investigator connected with our organization desired to apply for a grant to assist in carrying out a specific investigation and is prepared to personally direct the work, such application would receive full and careful consideration".

The 1931 C.D.A. Committee reported that it recognized the necessity for three factors:

1. Qualified research workers.
2. Adequate research facilities.
3. Financial support.

Financial support had been sought from the National Research Council, the Ontario Research Foundation, the Banting Institute and the Dominion Government, but without success. Active research was reported from Nova Scotia, Quebec and Ontario. The Committee recommended that the Canadian Dental Research Foundation, which had originally been the research committee of the Canadian Dental Association, but which had ceased to function as such and had been supplemented by another Committee, should again resume the duties and function of the C.D.A. Research Committee. They announced a second research prize-competition to encourage research in Canada. The industrial depression was then at its worst, and no funds were available for research. The results of the above competition were announced in 1933, the judges being Drs. Ritchie of Halifax, Emery Jones of Vancouver and Baxter of Montreal. First prize was won by Dr. S. W. Leslie, second prize by Dr. F. C. Husband for his work on copper amalgam, and third prize went to Dr. F. M. Lott.

Dr. McDonagh was chairman of the Research Committee of the C.D.A. in 1937 and reported three research projects actively under way: A study of mentally-ill patients to determine the role of impacted and infected teeth as causative factors; the influence of the pressure of orthodontic appliances on the patients' nervous state; and the effect of endocrine secretions on teeth and bones. The latter project was being conducted under a grant from the Ovaltine Company.

When war again broke out in 1939 war-time call-ups and conditions again seriously curtailed research activities. Dr. Box continued to work tirelessly under difficult and inadequate conditions and published eleven papers during this period. A combined Medical-Dental research unit was formed by the Medical branch of the Air Force at Trenton, and Drs. Linghorne and McIntosh performed outstandingly in this unit for Dentistry.

In 1943 Dr. R. G. Ellis as chairman of the Research Committee of the C.D.A. reported that "at the request of the Health Insurance Committee of the C.D.A. the Research Committee has produced the enclosed research outline as an adjunct to the role dentistry is to take in the Health Insurance plan of Canada". He submitted an outline for a research project requiring an initial outlay of \$5,000.00 and \$25,000.00 annual expenditure.

The next year the C.D.A. officially petitioned the National Research Council as follows:

- (a) To establish an Associate Committee for dental research.
- (b) To provide the monies to support the work of the Associate Committee.
- (c) To convene a conference of all recognized groups interested in dental research.

A sub-committee comprising Brigadier F. M. Lott, Dr. Harvey Reid and Dr. R. G. Ellis was appointed to wait upon the acting President of the National Research Council.

The National Research Council granted the request for a conference on dental research and those who attended the conference will remember the trials endured by the flesh during the journey to Ottawa that were occasioned by an unprecedented snowfall. On December 15, 1945 the N.R.C. announced that "The Council has accepted the request of the Canadian Dental Association for an Associate Research Committee because we are genuinely interested in fostering the research spirit in the dental profession." The Associate Committee was formally constituted on March 16, 1946 with the personnel comprising outstanding representation from basic and medical science, as well as ten outstanding dentists from across Canada, four of whom represented the Canadian Dental Corps and with Dr. R. G. Ellis as Chairman.

The following year the Research Committee of the C.D.A. announced through the C.D.A. office that the Com-

mittee was offering financial assistance in the form of "Studentships" to those "who have given distinct evidence of capacity for original research (or who have won distinction in scientific study during their University training) and who desire to prepare themselves for scientific research by continuing their study in the sciences fundamental to their research fields". A number of graduates have already been trained for key research and teaching positions and several are being thus assisted at the present time. The work of the C.D.A. Committee has been supported by an annual grant from the Association and for a period of five years the Dental Council of Canada gave a grant of \$1,000.00 each year.

During the years 1939-1945 the Canadian Dental Research Foundation was inactive, and some \$3,000.00 had accumulated in interest from the Trust Fund, which is now in the neighbourhood of \$17,000.00. The Foundation approached the Research Committee of the C.D.A. with the objective of making the funds available for the benefit of Canadian research. As the result of these deliberations, which were finalized at the C.D.A. meeting in Toronto in 1950, the Research Committee of the C.D.A. assumed responsibility as the Board of Directors of the Canadian Dental Research Foundation. The Chairman of the Research Committee of the C.D.A. automatically becomes the President of the Canadian Dental Research Foundation and the trust fund is administered by the Research Committee in accordance with the terms of its government charter.

Dental research in Canada has come a long way since the days of Dr. Lancaster and his meagre \$100.00 grant, and in spite of two world wars and a major depression progress has been fairly consistent. The Research Committee of the C.D.A. has currently reported twenty-seven research projects active in Canada with the National Research Council financially assisting

about fifteen of them, with an annual budget of approximately \$35,000.00. The International Association for dental research is still active and the research activities of the Faculty of Dentistry, University of Toronto, are administered through an enthusiastic "Division of Dental Research" which has received this year \$16,000.00 in financial support from the University of Toronto, as well as generous grants from private sources.

The three fundamental principles so longed for by the Committee in 1931 have become in large part an actuality. The studentship grants from the Research Committee of the C.D.A. should provide qualified research workers; adequate research facilities are being made available through our Universities; the National Research Council is supplying financial support for quali-

fied workers on approved projects. We have made a start, but we are only at the beginning.

What of the future? Some of us can recall the words of Dr. A. E. Webster in the early nineteen twenties: "Thinkers are few, research workers are scarce and money is hard to get . . . What must we do? Keep on training the average person to do the average things, but give all those who show special skill or ability the chance to prosecute their bent of mind. Who knows but there sits before me a Hunter, a Newton, a Miller or a Black?" Research expenditures are void unless they are made through qualified workers who are sparked by the prime essential of an intelligent and inquiring mind.

Faculty of Dentistry,
University of Toronto.

Dental Public Health in Canada

by H. A. SWALES, D.D.S., F.I.C.D., Toronto, Ontario

THE Canadian Dental Association, celebrating fifty years of progress in this year of nineteen hundred and fifty-two, would date its birth in nineteen hundred and two. Progress must seem like a small word to describe the giant strides made by our Association, when viewed in retrospect by some of our confrères, present now, who were present at the beginning in Montreal September of nineteen hundred and two. The foundation must have been well and truly laid as every department has expanded over the years, Dental Public Health, under many different names, keeping pace with other committees.

How surprised some of our starry-eyed dentists, who think Dental Public Health a new mysterious bugaboo must be to hear the following resolution taken from the minutes of the first Canadian Dental Association meeting:—"The appointment by each of the provincial incorporated dental

bodies of a committee on the Dental Education of Public School children with instructions to secure the following:

- (1) An act requiring the periodical examination of the teeth of school children.
- (2) Revision of school books with regard to hygiene of the mouth and teeth.
- (3) Distribution of suitable booklets in the public and private schools and large military camps.
- (4) Special instruction in this subject in Normal Schools.
- (5) Special paper on the subject of Dental Hygiene in examination for teachers' licenses.
- (6) Lectures before teachers' associations and school children in private and public schools. (carried)."

A pretty sound resolution and if it had been carried out, to the letter, the Dental Health of our citizens would

be much better than it now is. The fault is not with our Association but with the individual member; he has not assumed his personal responsibility to make the scheme work; the same is true today.

Committees under the names of Public Dental Health Education, Public Dental Education and finally Dental Public Health Committee, have functioned in the Canadian Dental Association all during these fifty years. At the nineteen hundred and forty-five Winnipeg meeting the Terms of Reference were revised to give us our present setup, the terms of which I hope you are all familiar, a central committee with each province having a Dental Public Health committee to carry out their own projects.

In some instances apart from and some in conjunction with The Canadian Dental Association the provinces have been carrying on Dental Public Health programs, with varying success throughout all these years. Today we find some well-organized provinces, with a Director of Dental Services in the Department of Health of the provincial government to direct well-organized programs; others unfortunately have not made much progress on the provincial level. It is our sincere hope that this will soon be corrected and every province will have a Dental Director in the Health Department to carry on programs suggested by the voluntary committees of the provincial Dental Association. Similar projects applicable to local conditions is most desirable in every province.

In reports from the different provinces one point relating to Dental Public Health always comes up, that is the part played by the Field Secretary of the Canadian Hygiene Council. The onset of local activities all over seemed to follow a visit and an inspiring address by this man, an outstanding figure in the development of any interest in this work throughout Canada. Our Association and provincial organizations owe much to the Canadian

Hygiene Council in general and the Field Secretary in particular for sowing seeds in ground which did not seem too fertile and required so much cultivation.

Another organization known as The Canadian Prophylactic Association should be mentioned for the contribution made, through the years, to dental education of lay groups. Primarily this group had many other activities but a real effort was put forth and at one time the Canadian Dental Association did delegate public education to the Canadian Prophylactic Association.

The development of Dental Public Health in each province unfolds interesting stories. Progress is slow, results often obscure and discouragement frequent but fortunately there is always someone interested enough to keep the spark alive until it suddenly breaks into a flame. Voluntary committees within the provincial associations develop men to carry on programs. Dentists must take the initiative and be leaders to give dental education to lay groups. Commercial interests in this field are often biased hence the necessity of members in our profession measuring up to this important work.

Just to review the present structure of Dental Public Health in Canada today! The Canadian Dental Association Board appoints a chairman who is responsible to the Board for the activity of a standing committee within the Association subject to by-laws and Terms of Reference of the Canadian Dental Association. Mechanism within our terms of reference surround the chairman with a committee appointed by him and give guidance to the provincial associations for the establishment of a comparable committee within the province. It is suggested that these provincial committees decentralize their work through government health centres or similar zones depending on their geographical or political structure. With this network broken down and extended to every

area and the laboured expression "interested dentist" active, Dental Public Health should go far.

It is the sincere wish of the writer, members of his committee and provincial committee members that when history is written, fifty years hence,

our organization of Dental Public Health will look to have been soundly laid; that sufficient interest of our profession may be aroused to bring about results beyond our fondest dream.

205 Yonge Street.

Royal Canadian Dental Corps

by Brigadier E. M. WANSBROUGH, O.B.E., M.M., E.D., D.D.S., F.I.C.D., Ottawa, Ontario

PRIOR to the Great War, 1914-1918, the dental profession was represented in the Canadian Armed Forces by 26 dental officers of honorary rank, attached to various units of the Medical Corps. However, at the outbreak of war, rejections of men because of dental diseases, assumed such alarming proportions that certain members of the profession in Canada offered their services. As a result, dental treatment for Service personnel was originated by civilian practitioners.

The military authorities soon realized that dental service on an organized basis was required, with the result that on March 29, 1915, the Canadian Army Dental Corps was authorized as a separate Service within the Canadian Army Medical Corps, under the administration and professional control of the Director of Medical Services. The establishment authorized a total of 14 operating officers for an Infantry Division, a ratio of one dental officer to 1400 personnel. Actually in the field this ratio was reduced to 1 to 5000 as dental officers were authorized for medical units only. In 1917, an increased establishment was authorized including provision for a dental staff but this increase was never fully implemented.

Strength of the Corps on first going overseas was 30 officers, 34 non-commissioned officers and 40 other ranks. At the time of the Armistice, the strength had increased to 223 officers, 221 non-commissioned officers and 238

other ranks. Of this number, there were in France, 76 officers, 76 non-commissioned officers and 64 other ranks; in England, 147 officers, 145 non-commissioned officers and 174 other ranks. The administrative headquarters was in London, England, where the Director, Colonel J. A. Armstrong had the assistance of a Deputy Director and a Deputy Assistant Director.

As a reward for their services in the Great War, personnel of the Dental Corps were awarded: Companion of St. Michael and St. George—2; Commander of the British Empire—1; Order of the British Empire—8; Distinguished Service Order—2; Member of the British Empire—1; Meritorious Service Medal—4; Mentioned in Despatches—11; Secretary of State for War Citations—59; and Foreign Decoration—1.

Following the war, the Canadian Army Dental Corps endeavoured to make every soldier dentally fit. After this tremendous task, the Dental Corps was demobilized and ceased to exist with the exception of a few medical units which retained dental officers. The Defence Forces List of August 1938 shows the following C.A.D.C. officers, 3 Majors, 12 Captains and 19 Lieutenants in the Non-Permanent Active Militia and 1 Captain, 6 Lieutenants on the Reserve List. The profession had no unit representation in the Permanent or Non-Permanent Active Militia. The disbandment of dental units eliminated

any training program for officers and other ranks and dental equipment was not stored.

Sir Cuthbert Wallace, one of the medical consultants with the British Army, gave generous praise to the Canadian Dental Service in the words: "The Canadians had a perfect dental organization. Their dental surgeons were attached to the ambulances and did an immense amount of work in the forward area, even to the provision of gold plates. Their organization is one that we might copy to advantage."

SECOND WORLD WAR

The Canadian Dental Association, interested in the problem of adequate dental services for the Canadian Armed Forces, appointed a committee to prepare a report on the subject which was to include a plan of organization. This plan, with modifications, had been submitted and was in the process of adoption prior to the outbreak of war.

The declaration of hostilities in September 1939, accelerated the execution of the plan and Dr. Frank M. Lott, Professor of Prosthetic Dentistry at the University of Toronto, who had been responsible to a great extent for its development, was called to Ottawa, in the rank of Lieutenant-Colonel, to become the first Director of this new organization, the Canadian Dental Corps.

The Canadian Dental Corps was unique in that it was employed on a tri-service basis although essentially an Army establishment. Dental Services became a Directorate of the Adjutant-General's Branch at National Defence Headquarters, with liaison established for Navy and Air Force by the appointment of Deputy Directors. The Director of Dental Services was responsible to the Vice-Chief of Naval Staff Royal Canadian Navy, the Adjutant-General Army and the Air Member for Personnel Royal Canadian Air Force, on all matters of dental

health for personnel of the respective Services.

Dental Companies were formed throughout Canada, one for each military district, and consisted of the Headquarters or Administrative Section and clinical detachments. Each clinical detachment consisted of a dental officer, a Sergeant assistant and an orderly. Dental technicians were authorized in the ratio of one to two dental officers. As the war progressed women were recruited and taken into the Services. The C.D.C. trained and employed members of the Women's Royal Canadian Naval Service, Canadian Women's Army Corps and Royal Canadian Air Force (Women's Division) as dental assistants, clerks and in Stores.

The Officer Commanding the Dental Company was responsible to the Officer Commanding the Military District for the dental welfare of the troops, but was permitted a direct channel of communication with the Director of Dental Services on all matters pertaining to dental policy and technical administration. All three Services received equal priority for dental treatment at strategically located clinics.

The following were appointed as District Dental Officers with ranks and appointments as stated below, effective September 1, 1939:

Lieut.-Col. W. G. Trelford, E.D.,
Military District No. 2.

Lieut.-Col. G. L. Cameron, D.S.O., V.D.,
Military District No. 12.

Lieut.-Col. J. C. W. Broom, E.D.,
Military District No. 3.

Lieut.-Col. J. W. Rooney, E.D.,
Military District No. 5.

Lieut.-Col. W. W. Wright,
Military District No. 10.

Major J. F. Blair, D.S.O.,
Military District No. 1.

Major F. W. Saunders,
Military District No. 4.

Major L. V. Janes,
Military District No. 13.

Major C. B. H. Climo, D.C.M., E.D.,
Military District No. 6.

Captain E. F. Allen,
Military District No. 11.

As the need for service dentistry increased it was necessary to create additional Dental Companies until eventually there were 24 in Canada. Three of these Coys. were assigned to the Navy, (one of which was never completely mobilized), fifteen were allotted to the Army, one stationed in Newfoundland, and six Coys. were attached to the R.C.A.F.

A C.D.C. Technical Training Centre was authorized in Toronto on September 1, 1943. The establishment was 16 officers and 22 men. This Centre presented 116 courses to 1232 officers and men of the Corps.

At the R.C.A.F. Station, Trenton, Ontario, the C.D.C. in conjunction with the R.C.A.F. Medical Service, conducted research projects relating to the particular problems presented by military dentistry.

Dental detachments accompanied the various Task Forces that were despatched from Canada. These included "W" Force to Newfoundland, the dental component of which was later incorporated into No. 10 Coy. "Z" Force to Iceland, "Y" Force to Bermuda, "C" Force to Hong Kong and "Green Light" Force to the Aleutians.

As troops sailed for England, it became necessary to form Field Dental Coys. with an authorized establishment of 24 officers and 80 men. These were completely equipped, mobile, independent units.

No. 1 Field Dental Coy. left Canada late in December, 1939, with the First Canadian Infantry Division. The Officer Commanding was Major W. G. Trelford who had reverted from the rank of Lieut.-Col. to assume this Command.

In June, 1940, No. 2 Dental Coy., Officer Commanding, Major J. F. Blair, D.S.O., accompanied the Second Division overseas. At the same time, 11 officers and 36 men were sent to form an overseas base C.D.C. in England. During 1941, Nos. 3, 4 and 5

Coys. went overseas after concentration at Debert, N.S. No. 8 Coy. concentrated at Camp Borden, Ont. and arrived in England on November 24 of the same year, and in 1942, No. 6 Coy., which had also concentrated at Debert, arrived in England on October 7 to be followed on July 27, 1943 by No. 9 Coy., the last of the Field Dental Coys. to leave Canada as a unit. No. 7 Field Coy. was formed for the 6th Canadian Division and remained with this Division in Canada.

In addition to the Field Coys. Nos. 15, 16 and 17 Base Coys. were formed in England as the need arose to provide dental services for static formations, hospitals and to supply reinforcements to the Field Coys.

The first element of the C.D.C. to leave England was in June, 1940, when a detachment moved with the First Canadian Brigade Group to France. A Task Force despatched from England to Spitzbergen in 1941 also included a dental detachment.

Nos. 1, 3 and 8 Field Coys. accompanied the Canadian troops to Sicily and Italy in 1943 and were augmented by the addition of No. 11 Base Coy. formed at Avellino, Italy, during June, 1944. The ship transporting No. 8 Coy was torpedoed and sunk in the Mediterranean. Fortunately, there was no loss of personnel, although the Unit had to be completely re-equipped.

The C.D.C. was represented in the Invasion Force of Northwest Europe on D-Day, June 6, 1944, by three detachments, a detachment being allotted to each Field Ambulance of the Assault Division. These detachments landed on D-Day with Medical units. A fourth detachment arrived a few days later with the Light Field Ambulance of the Armoured Brigade.

Subsequent to D-Day, Nos. 2, 4, 5, 6 and 9 Field Coys. with No. 12 Base Coy. were allocated to the Canadian Army in Northwest Europe. They were joined during March and April, 1945 by the Coys. from the Italian Theatre.

The administrative control of the

Canadian Dental Corps Overseas was vested in 1940 in an Assistant Director of Dental Services (Lieut.-Col.) at Canadian Military Headquarters, London. In December, 1942, this appointment was upgraded to an Assistant Director Dental Services (Colonel). This officer was assisted by an Assistant Director Dental Services (Lieut.-Col.), Canadian Military Headquarters and an Assistant Director Dental Services (Lieut.-Col.), Canadian Reinforcement Unit. The Senior Dental Officer with the Canadian Army was an Assistant Director Dental Services (Colonel). This appointment was later changed to Assistant Director Dental Services, 1st Echelon, 21st Army Group and the appointment of Assistant Director Dental Services Army was downgraded to the rank of Lieut.-Col. An Assistant Director Dental Services (Lieut.-Col.) also served with 1st Echelon, Central Mediterranean Force.

When the first R.C.A.F. Squadron sailed for England in February, 1940, it was accompanied by a Dental Detachment. This detachment and others following became No. 18 Coy. (R.C.A.F.) with Headquarters at R.C.A.F. Overseas Headquarters in London. This Coy. later sent detachments to India, Ceylon, Egypt, North Africa, Italy and Northwest Europe. In October, 1943, a Second Unit, No. 19 Coy. (R.C.A.F.) was formed to give dental service to No. 6 Group of Bomber Command in Yorkshire, and in the fall of 1944, No. 20 Base Coy. (R.C.A.F.) was brought into existence for R.C.A.F. Stations in Southern England. Administrative control was exercised primarily by a Command Dental Officer at R.C.A.F. HQ. Overseas. This appointment was later upgraded to Assistant Director Dental Services (Colonel).

Naval Units Overseas were served by detachments from the Army Base Coys. in England, until the fall of 1944, when No. 53 Coy. (R.C.N.) was formed and assigned to R.C.N. Headquarters, London, England. Dental de-

tachments were borne by the larger ships of the R.C.N.

Fulllest advantage was taken of the opportunity to attach dental officers to British Hospitals for training in the treatment of maxillo-facial injuries, following which a Training Wing in this specialty was set up at Basingstoke, Canadian Neurological and Plastic Surgery Hospital. A dental detachment also served at Queen Victoria Hospital, East Grinstead. A Technical Training School for dental technicians was established at Witley, Surrey. Short professional courses were also held at C.M.H.Q. clinic in London. At the conclusion of the war, a Professional Training Wing was organized for officers and men at Utrecht, Holland.

As the C.D.C. was responsible for the provision and distribution of all stores and equipment, an Intermediate Base Dental Stores arrived in England in June, 1940. During the summer of 1942, this was absorbed into a new unit, the Canadian Army Depot of Dental Stores, which supplied all units in England. The requirements for stores by the various Coys. in Italy were met through an Army Dental Stores, and eventually in Europe by both a Base and an Army Dental Stores.

Field equipment was carried in portable trunks with alphabetical designations. The "A" trunk contained all the necessary operating instruments and supplies for the dental officer, with the exception of the field chair and foot engine, which were contained in the "B" trunk. The "H" trunk contained an extra month's supply of consumable stores. The "F" and "G" trunks contained the x-ray equipment, consisting of the x-ray machine, developing tank, etc., and also a portable darkroom. The "C" and "D" trunks contained laboratory equipment designed for adequacy in any area where a technician might be employed. In addition to this equipment, the dental officer carried an "L" trunk, a small valise designed to carry

sufficient dental instruments and supplies including maxillo-facial equipment for the treatment of emergencies in the field.

A mobile dental clinic on a standard 3-ton chassis and equipped with six volt and 110 volt operating lights and two 25 gal. water tanks was developed. Mobile clinics could be blacked out and were supplied with a portable gasoline operated electric generator to provide the necessary power. These vehicles proved to be highly efficient adjuncts to the dental service and were used over all types of wheeled vehicle terrain in the various theatres of war. The equipment and mobility of the R.C.D.C. was the envy of the Dental Corps serving with the other allied forces.

During the war, the Corps grew to a total strength of 1,562 Dental Officers and 3,725 men, of whom 748 officers and 1,747 men served overseas. 14 officers and 19 men were killed or died on Active Service. The number of honours and awards bestowed on officers and men of the C.D.C. was: Commander of the British Empire—1; Order of the British Empire—9; Member of the British Empire—11; British Empire Medal—6; and Mentioned in Despatches—45.

POST WAR

Brigadier F. M. Lott, C.B.E., E.D., who had served as Director and later as Director-General of Dental Services throughout the war, returned to Reserve status on February 1, 1946. He was succeeded as D.G.D.S. by Colonel Dwight S. Coons, O.B.E., M.M., E.D., who served in this capacity until September 28, 1946, when this appointment was assumed by Colonel E. M. Wansbrough, O.B.E., M.M., E.D.

Following the cessation of hostilities, and the period of demobilization, there emerged for the first time in Canadian military history, a peacetime dental establishment, comprised of both Active and Reserve components. The establishment for the Active Force on October 1, 1946, the date of the re-

organization of the Canadian Army was 93 dental officers and 147 men. The standard organization of the Field Dental Coys. was preserved in the Reserve Coys. which were authorized across Canada. Although established as part of the Canadian Army (R.F.), detachments may be attached to Reserve formations of the R.C.N. and R.C.A.F.

A Director-General Dental Services administers the Corps, and Dental Services is a Directorate of the Adjutant-General's Branch, Army Headquarters. Navy and Air Force liaison is maintained through Deputy Directors.

Three original Dental Coys. were established, No. 11 Coy., No. 12 Coy. (R.C.N.), and No. 13 Coy. (R.C.A.F.), with Headquarters at Edmonton, Halifax and Trenton. While so designated, each Coy. actually provided dental treatment for all three Services within specified geographical boundaries. Two additional Coys. have since been authorized, namely No. 14 Coy. HQ. Winnipeg and No. 15 Coy. HQ. Montreal.

Overseas, the R.C.D.C. is represented by 25 and 27 Canadian Field Dental Units which are serving in Korea and Germany, respectively. These units are commanded by a Major with a combined Adjutant-Quartermaster (Captain) and consist of 9 clinical subsections, each composed of a dental officer, assistant and orderly. Technicians are supplied on the basis of one for two operators. These detachments are completely motorized and dental operations in the field are carried out in mobile clinics. They are in effect Field Coys. with a restricted establishment. A dental detachment has also served since January 1951, for 421 Squadron, R.C.A.F., in England.

The R.C.D.C. School supplanted the Technical Training Wing of the war years. It is stationed in Ottawa and staffed by specially trained officers and technical instructors. The indoctrination and advanced training of

dental officers and tradesmen is carried out at this School.

Central Dental Stores is also situated in Ottawa, and stocks equipment and stores for shipment to individual Coys. A Repair Section is operated and the training of dental equipment repairers is an added function.

The Corps plays a dual role in Service life. As training for war is the primary object of any unit or Corps of the Armed Forces, in the R.C.D.C. as in other Arms of the Services, training must be so directed that it will result in the most efficient performance of duty under conditions of war. At the same time, the R.C.D.C. in peace and war, makes a valuable contribution to the health and well-being of the personnel of the Armed Forces through the dental treatment provided. This service is extended in isolated areas on a repayment basis to civilians, employed by Government Departments where no civilian dental facilities are available.

The training program for officers includes the study of military subjects. Qualification for promotion is obtained by successfully passing examinations set by Army Headquarters. Indoctrination and refresher courses in both military and technical subjects are given at the R.C.D.C. School. Courses are also taken at the various Corps and Service Schools of the Armed Forces of Canada and the U.S.A. Post-graduate dental training is received from Canadian and American Universities.

Training for men consists of trades training for dental assistants and dental technicians at the R.C.D.C. School. Courses for Instructional and Administrative Cadre, clerks, storemen and driver mechanics are obtain-

ed at other Corps Schools both in Canada and the U.S.A. All of these courses contain instruction in military subjects which is required for promotion.

Over and beyond the routine type of treatment rendered in any dental office, the R.C.D.C. makes special contributions. Specially qualified dental and medical officers comprise maxillo-facial teams to provide treatment for the various types of injuries of the face and jaw. A great deal of highly commendable service was performed by these teams during World War II. Research in the various problems presented by the practice of dentistry in the military field is also carried on.

In February, 1947, His Majesty the King was graciously pleased to approve the grant of the title "Royal" to the C.D.C. Contingent upon this approval, the Corps adopted the title "Royal Canadian Dental Corps". In October, 1950, an alliance with the Royal Army Dental Corps of the British Army was also approved.

Thus, the R.C.D.C. while a very youthful Corps in terms of service, is proud of its achievements, its unique tri-service responsibility and the prestige it enjoys with the R.C.N., Canadian Army and R.C.A.F., the dental profession and the dental faculties of the Universities of Canada.

The Corps has been built on the principle of developing and maintaining the highest standards of military and dental skill compatible with the policy of doing the greatest good for the greatest number. In this way only can it fulfil its mission and establish that confidence within the profession which is essential to making a career in the R.C.D.C. attractive to the best type of dental graduate.

"The crisis of communism exists to the degree in which it has failed to free from God the peoples that it rules.

"The crisis of the Western world exists to the degree in which it is indifferent to God. Its crisis exists to the degree in which the Western world actually shares communism's materialistic vision."

The Development of the Dental Specialties

by G. VERNON FISK, D.D.S., F.A.C.D., Toronto, Ontario

THE turn of the Century witnessed a new trend in Canadian dentistry which has gained in impetus as the years have unfolded. The new trend was towards specialization, which began in Montreal, when Dr. George Beers, a prominent member of the profession, began to devote a large part of his practice to Exodontia. Encouraged by his success, other dentists in the larger cities followed Dr. Beers' example. It was, therefore, a logical step, for a few to limit their practices to one branch of dentistry. Among these were Dr. Thomas Henderson, Toronto, Exodontia, Dr. Andrew J. McDonagh, Toronto, Periodontics, and Dr. Arthur Roberts, Toronto, Orthodontics. Thus, the foundation was laid for three vigorous dental specialties, Dental Oral Surgery, Periodontics, and Orthodontics.

Through the half Century which followed, progress among these specialty groups has been steady. This progress has been stimulated by membership in the association of specialists in the United States of America, and by contact with those of the same specialty at national or provincial dental meetings. In the Province of Ontario, two specialty groups now hold meetings, either before or during the Ontario Dental Association meeting.

These groups are, the Ontario Society of Dental Oral Surgeons, and the Ontario Society of Periodontists. It should be stated that the forerunners of the Provincial Societies were the specialists' groups of the larger cities of which the Orthodontic Club, Toronto, is an example. Organized in 1926 with a membership of eight, it has seen continuous activity ever since, and now has an active membership of seventeen. A similar group, the Montreal Society of Orthodontists, has been active in Montreal for the past

twenty years. These and similar groups in other specialties, have done much to encourage and stimulate the interest of the younger members of the specialties.

In 1945, through the Committee on Specialists and Specialization of the Canadian Dental Association, liaison was established between the Association and the specialty groups. In 1950, the members of the Orthodontic specialty received the approval of the Board of Governors, to establish an Orthodontic Section, within the structure of the Canadian Dental Association—the first specialty group to be organized on a national basis. Immediately following the formation of the Section, the members initiated the Grieve Lecture as a memorial to their former colleague, Dr. George W. Grieve, an outstanding Toronto orthodontist, who achieved international renown, and is the first lectureship to be established by Canadian dentistry.

Under the aegis of a few paedodontists, the Canadian Society of Dentistry for Children, was formed in 1950, to develop and foster an interest in the subject, among dentists. Two meetings of the Ontario Chapter have been held, and it is the aim of the Society to extend its activities to the other provinces. Membership in this Society is not limited to paedodontists.

The last three decades have witnessed the development of specialty boards in medicine and dentistry, in the United States of America, which have set up standards of fitness for certification. Such certification is now a requirement of the Boards of some hospitals, when making Staff appointments. Many Canadian dentists have received certification by specialty boards of the United States. While such certification is an indication to the public that the diplomat has equip-

ped himself with more than average knowledge and ability, in the particular branch of dentistry, it does not, however, confer upon him any legal right to practise the specialty in Canada. The qualifications for practice come under the jurisdiction of the dental legal bodies, and in two provinces additional qualifications, besides certification as above, are required for legal permission to practise or be listed as a specialist.

For over twenty-five years, certification has been a requirement by the Alberta dental legal body, for specialization in that province, and for nearly nine years, by the Board of the Royal College of Dental Surgeons, of the Province of Ontario. This step was taken by these two bodies in the public interest. Among other requirements for certification as a specialist in these

two provinces, a dentist who has completed a course of instruction satisfactory to the Boards, may be recognized as a specialist. In order to provide the necessary training for qualification, courses of instruction at the graduate level, have been established by the Dental Faculties of the University of Montreal, and the University of Toronto.

Within the limits of the allotment of space, only a brief outline of the development of the specialists has been possible. However, in the years that lie ahead, as in the past, the members of the various specialty groups, will continue to lend support towards constructive professional advancement.

Medical Arts Building
170 St. George St.

Dental Council of Canada

by A. J. BRETT, D.D.S., F.I.C.D., Regina, Saskatchewan, Secretary D.C.C.

ON SEPTEMBER 16, 1902, at McGill University in the city of Montreal, Quebec, the representatives of organized dentistry of Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario and the territories later to be known as Manitoba and Saskatchewan met to discuss the possibilities leading to a central dental organization to serve the dental profession of Canada. Alberta and British Columbia were not represented. In 1906 the organization which was to become known as the Dominion Dental Council of Canada began to function and continued under that title until 1950 when the name was changed to The Dental Council of Canada.

The purposes and objectives of the organization were as follows:

1. To promote a central organization under the control of the dental profession of the provinces of Canada.
2. To erect and maintain a standard

of education and ethics for the dental profession.

3. To issue certificates of qualification to candidates successfully passing the Dental Council examinations.

Although the organization meetings were held in Quebec, that province has not become an agreeing province. In the early years Alberta withdrew for one short period. British Columbia has twice entered the Council and has twice withdrawn. Since the inclusion of Newfoundland as a Canadian province, Newfoundland has not as yet become a member of the Council. The remaining provinces have supported the organization from the beginning.

Since 1906 the records of the Council will demonstrate the fact that the best interests of the profession and those candidates taking the Council examinations have been uppermost in the minds of those directing the af-

fairs of the Council. A study of the changes and revisions of the by-laws, and the examination standards and procedures, will reflect the constantly changing opinions of the widely separated areas of population in Canada and will explain the failure of the Dental Council to incorporate in its organization all the provinces of Canada. The divergent attitudes and conflicting pressures which are potent factors today in all business and professional relationships throughout Canada, have been felt in Dental Council administration as well. It is the earnest hope of the members of the Dental Council that the future may see the organization of a new National body able to resolve these differences of opinion and to submerge these conflicts and attitudes in such a manner as to bring into its scope every provincial dental organization in Canada.

To Whom Certificates of Qualification Shall be Granted:

Section 11—The following classes are eligible for certificates of qualification by meeting the standard erected for each as follows:

Class A

Canadian citizens who are graduates of dental schools of Canada or the United States of America which are approved by the Council on Dental Education of the Canadian Dental Association and who have complied with the following requirements:

(a) The presentation to the Secretary of The Dental Council of Canada of an enabling certificate which he obtains from the Registrar of the legal dental body of the province in which he resides.

This certificate states that the candidate has complied with all the requirements relating to preliminary education (consisting of at least two years in arts and science, which includes physics, chemistry, biology and French or English), matriculation, dental curriculum and graduation, and his eligibility to

write on the examinations for license to practise dentistry in that province.

(b) A Class "A" candidate who does not complete his examination in five years shall automatically become a Class "D" candidate.

Class D

Any Canadian citizen, holder of a valid and unforfeited certificate which has been registered in any of the agreeing provinces and who produces proof of having had pre-dental education equal to two years in arts and sciences, which includes physics, chemistry, biology and French or English, in any recognized University of Canada or the United States of America, approved by the Council on Dental Education of the Canadian Dental Association, and has graduated from a similarly approved Dental School and who has been in regular, legal and ethical practice of dentistry in any of the agreeing provinces of Canada for at least five years immediately prior to the date of application for examination, may make application to take the Dental Council of Canada examination; provided his legal, ethical and moral standard is vouched for by other members of the profession, and that he pay the fee of \$150.00.

Candidates for examination under Class "D" will be required to pass the same examination as Class "A".

Candidates applying for Class "D" examinations shall provide an enabling certificate provided by the Registrar of the legal dental body of the province in which he practises.

Since 1906 there have been 1,798 certificates issued.

The present officers of the Council are as follows:

President—Dr. H. L. Freeland, Calgary, Alberta; 1st Vice-President—Dr. Heath McIntyre, Charlottetown, P.E.I.; 2nd Vice-President—Dr. R. O. Winn, Kitchener, Ontario; Secretary-Treasurer—Dr. A. J. Brett, Regina, Saskatchewan.

Representatives on the Council: Dr. H. S. Crosby, Halifax, N.S.; Dr. Harry H. Peters, St. John, N.B.; Dr. H. J. Merkeley, Winnipeg, Manitoba.

"Let no one cherish the illusion that without religion and morality the security and well-being of the Nation can long survive."—George Washington.

"All I have seen teaches me to trust the Creator for all I have not seen."—Emerson.

Voluntary Dental Organizations in Canada

by S. L. HONEY, D.D.S., B.Sc., (Dent.) D.D.P.H., Toronto, Ontario

A casual glance back over the history and development of our dental organizations in Canada indicates that it parallels in many respects, the progress made from the days of the pioneers to our present state of so-called civilization. The most progressive areas have set up for themselves the best health services and organized the most aggressive dental societies.

Our country is often spoken of as a young country, meaning that it has only recently been populated by the Caucasian race. Within the memory of a generation now living, much of the forest-covered part of Eastern Canada has been reclaimed for agriculture and much of the western prairies has been put under cultivation for the first time. We are, therefore, closely linked with that hardy group of people whose efforts laid the foundations of our nation and who themselves enjoyed little of the social services, if any, that existed during that period, including health services.

Dentistry, as a profession, is also young when compared with those that have been associated with civilized people for centuries. In Canada, we have had then, a young profession developing within a young country and we think a neutral commentator would rate the effectiveness of our present-day dental profession as second to none among the nations.

It is interesting to note that the urge to provide more efficient dental services to the pioneers, particularly in Upper Canada, came from medical men who were interested in dental health as well as from men practising dentistry. The importance of some of their decisions cannot be overestimated. In January 1867 (Confederation Year) Dr. B. W. Day of Kingston called a convention of dentists in Toronto, to consider the propriety of organizing a dental association and of taking the necessary action to secure an act of parliament to require of dentists an examination touching their qualifications to practise dental surgery. A bill was drafted and the petition, incidentally, was signed by the professors of the two medical schools in Toronto, the leading physicians of Ontario. The bill was passed on the last day of the sessions and thus the way was opened for formal instructions in dental science.

ONTARIO

The group thus formed in 1868, after having changed its name at least once, became the Ontario Dental Association and has continued through the years to hold an annual convention save on two or three occasions. For many years, Toronto has been the host for this convention serving the 2,133 dentists of this province.

Other prominent associations in Ontario are the Eastern Ontario Dental Association, which usually meets in Ottawa, and the Northern Ontario Dental Association, five northern centres taking turn in being host.

There are about 36 local dental societies in this province, the chief one being the Toronto Academy of Dentistry which is really a large study group which meets throughout the winter months and no pains are spared to bring to the membership the best clinicians available. Its annual winter clinic is a day of dental education and many dentists from outside the city attend these meetings.

QUEBEC

Quebec means in the Algonquin Indian language, "The place where the river narrows" and was the name given to the settlement on the St. Lawrence in 1608 by Champlain. The present population of the province is over four million and contains Canada's largest city, Montreal, with a population of well over a million.

There are 1,208 dentists in Quebec most of whom were trained either in the Faculty of Dentistry, University of Montreal, or the Faculty of Dentistry of McGill University.

The two oldest hospitals in this province are the Hotel Dieu of Quebec built in 1639 and the Hotel Dieu of Montreal established in 1644.

During the years there have been at least twenty French speaking dental societies organized, the first one in 1868, and eleven of these are still functioning.

The leading English speaking society is the Montreal Dental Club which was organized in 1897 with Dr. V. G. Gardner as president. There were thirteen charter members, the only surviving member being Dr. C. F. Morrison. This Club holds a Fall Clinic each year with an average attendance of four hundred and

has an international reputation. Other English speaking societies are the Mount Royal Dental Society; the Montreal Orthodontic Society; the Montreal Endodontia Society and the Montreal Branch of the Academy of Dental Medicine.

BRITISH COLUMBIA

British Columbia is Canada's third most populated province and Vancouver is Canada's third largest city.

It should be no surprise to Canadians living elsewhere that dental organization in British Columbia has progressed with the industry of the people. Its 546 dentists are active in all types of dental health programs that are carried on in the other provinces for the benefit of the public.

The provincial voluntary society is the British Columbia Dental Society. It has between 350 and 400 members of the total of over 500 registered in the province. It collects its own dues, which, of course, are not compulsory. It is vigorously active, and conducts all matters of non-legal nature, including association with government health organizations, and the preparation and supervision, in collaboration with the Department of Preventive Dentistry of the Provincial Government, of all public health programs. Headquarters is Room 218, Medical-Dental Building, Vancouver.

The two main local voluntary societies are the Vancouver and District Dental Society and the Victoria and District Dental Society. These operate monthly, throughout the year.

The Fraser Valley Dental Society covers the entire Fraser Valley area of the lower mainland, and extends over an area of many hundreds of square miles. The meetings are held monthly in various towns in the district, in succession, and are attended by a large percentage of the members, in spite of the fact that they sometimes have to travel as far as 50 to 60 miles.

In the Interior districts, The Interior Dental Society operates in the Okanagan Valley, also extending over a very large area. It usually holds a large spring meeting, and sometimes one or more smaller meetings throughout the year.

ALBERTA

Although regarded as an agricultural province, when oil was discovered in the Turner Valley in 1914 it was considered just another proof that Alberta is "God's country". When the C.P.R. completed the Palliser Hotel in Calgary it was a major tourist attraction to visit the top of this hotel at night to watch the millions of cubic feet of gas burning in the Turner Valley.

Since then many other rich oil fields have been discovered. In a recent press report it was stated that a Calgary lawyer had made 90 million dollars within the last five years from oil.

Alberta dentists, 328 in number, meet biennially with the Western Canada Dental Society, a society organized by the three prairie provinces, Alberta, Saskatchewan and Manitoba. The Society holds its conventions alternately in the three provinces.

There are four voluntary societies in this province—Lethbridge, Calgary, Central District with headquarters in Red Deer, and Edmonton. They are all very active and organize clinics frequently for their own groups and also co-operate in other circulating clinics which visit all four, or maybe three, societies on successive days. This has proven to be an excellent plan and is backed by the Board to the extent of one-half the cost paid to each society though in practice one local society will probably make all arrangements and make all payments for expenses incurred, then be reimbursed by the other groups.

One notable feature of these meetings is the high proportionate representation of the district in attendance at all clinics.

The Edmonton and Calgary societies hold monthly meetings from October through May and always have an educational section to the program consisting mostly of local speakers from dentistry, medicine at large and from the teaching staff of the University, not only on dental subjects but on all related subjects, including the sciences. Fortunately, the geography and transportation arrangements within the province facilitate arrangements for all these meetings.

Alberta has the only dental school in Western Canada, a faculty of the University of Alberta, located in Edmonton.

SASKATCHEWAN

Saskatchewan, a land of extremes—cold and heat, prosperity and depression, almost limitless miles of prairie land—has a history shorter than Confederation and shorter than the life of the Canadian Dental Association. It was organized as a province in 1905, and had tremendous growth, at least for a time, because of almost limitless acres of free and easily cultivated land.

Some dental historian should record the romance of the depression years. No single dentist in this Province escaped the effects of the twin disaster of drought and world-wide depression over a period of eight long years or more. Many dentists left the Province and only Government subsidy to cover mere costs

of materials, retained in rural areas sufficient men to provide some service to the people intent on staying with the land. At present there are 218 dentists in Saskatchewan.

Despite great distance from dental schools the voluntary societies carry on—a tribute to those who annually comprise the executives of those bodies.

There are very active local dental societies in Saskatoon, Moose Jaw and Regina, and also in Prince Albert.

There is also the Saskatchewan Dental Association which was organized many years ago. At the beginning of the last war it folded up, as some of the officers went into the Dental Corps and it was felt that it might be difficult to get a convention organized, but last year in Winnipeg during the Western Canada meeting, it was re-organized, and the men in Saskatoon agreed to get it operating again. In the past, provincial conventions were held and matters of interest to the Saskatchewan profession were discussed. This year it is planned to hold clinics, one in the spring and another in the fall. A clinician is to be obtained and routed through six or seven centres in the Province in order to bring him as near as possible to more men. Some of the places to be served are Regina, Moose Jaw, Prince Albert, Swift Current, Yorkton, and there may be others.

The clinician system is going to be given a trial and perhaps in the future the Saskatchewan convention may be rejuvenated. Some years ago this convention was held in the alternate year from the Western Canada Convention.

The Saskatchewan dentists cooperate enthusiastically with the Western Canada Dental Society which meets biennially in convention.

MANITOBA

In 1870, a British Act approved the entry of Rupert's Land and the North West Territory "into the Union or Dominion of Canada" as the Province of Manitoba. Its agricultural possibilities attracted more and more people whose efforts have brought to fruition the dreams of the early settlers.

In 1952 it is a prosperous central province with a population of 771,815 whose progressive ideas include a health program that has attracted the attention of other provinces.

Through the years the profession in Manitoba, numbering 261, has been well served by its voluntary societies. This has been most fortunate as, not possessing a teaching school, it has fallen to the lot of the voluntary societies to keep the

profession abreast of what is new and good in dentistry.

In association with Alberta and Saskatchewan, Manitoba is active in the Western Canada Dental Society, a voluntary organization which serves the three provinces jointly. The Western part of the Province is served by the Western Manitoba Dental Society while the Eastern part is looked after by the Winnipeg Dental Society. This group was formed in 1912 and has been most active in promoting study groups and bringing in outside talent, as well as observing an annual home talent meeting. There has always been the heartiest co-operation between these groups and the Board of the Association.

In addition to serious study these societies have made it possible for the men to play together in well-organized sports including golf and curling. Voluntary societies are in a healthy state in Manitoba.

NEW BRUNSWICK

New Brunswick was one of the original four Provinces that founded the Dominion of Canada in 1867. Being a Maritime Province its people were on hand comparatively early and its present population is 512,186 and its dental population 110.

The history of voluntary dental societies in this province is doubtless not unlike that of those formed in other provinces of Canada. A group of dentists imbued with the idea of furthering the advancement of dentistry and protecting the interest of the public were instrumental in forming three societies. These organizations were located in the three principal centres, Fredericton, Moncton and Saint John. The society in Saint John, the largest of the three, was formed in April 1912. In reading the minutes of meetings held by this society during the year of its inception and others that follow, one cannot but be impressed by the zeal and enthusiasm which stirred these men to help raise the standards of dentistry and elevate the profession. Speakers were brought in from outside points, clinics arranged and social gatherings held.

They can also be credited with bringing to the attention of the provincial organization the need for the strengthening of the Dental Act to eliminate illegal practitioners and to legislate against the unethical advertisers.

NOVA SCOTIA

Nova Scotia, according to the 1951 Census has 638,277 people and a dental population of 196. From the early days of its being settled, industrial activity

and dental organization have developed hand in hand. It is now one of the four provinces which have facilities for training and graduating dentists, indicating its active interest in this field.

Dental Health in Nova Scotia has been foremost in the minds and hearts of the dental profession as the earliest records available show. The importance of the care of the dentition of the pre-school age child was recognized by the pioneers to such an extent that clinics where treatment services were made available were established in the Halifax Dispensary in the year 1873.

The Dental Association, with the co-operation of the Red Cross, Provincial Government and various lay organizations, has been responsible for the mobile clinics which have been operating for some years during the summer months in areas where dental services were non-existent.

The voluntary dental organizations in Nova Scotia are: The Halifax Dental Society; Western Counties Dental Society, and Sydney Dental Society. The Halifax Society, which was organized in 1908, meets every month from October to May and the average attendance would be about 28.

PRINCE EDWARD ISLAND

Since the last World War, visitors to this Island are transported by a wartime icebreaker, now a luxury ferry called the "Abegweit". This was the name given to the Island by its original inhabitants, the Micmacs, and meant in their language, "Cradled on the Waves".

Early visitors to the Micmacs were Jacques Cartier in 1534 and Champlain in 1603. Later, visitors of importance came in 1864 and discussed their problems in Charlottetown, so today's traveller is taken by the guide, to the room in which plans were first discussed officially for a United Canada. Charlottetown may therefore be regarded as the birthplace of Confederation.

Prince Edward Island's population of 70,000 interested largely in agriculture and fishing, has progressed with other sections of Canada in respect to medical and dental services. Time, development and progress have brought modern dental service to the people of the province through the offices of the 29 dentists, as well as a plan for the future which is evidenced by the appointment of a qualified director of dental health by the Provincial Health Department.

There are no voluntary dental societies in this province. The one dental organization is the Prince Edward Island Dental Association.

NEWFOUNDLAND

In 1949, the people of Newfoundland having previously signified their wish to become citizens of Canada, were welcomed into the union and formed the tenth province.

History tells us that it is the oldest colony in the British Empire, geography tells us that it is slightly larger in area than Ireland and the Dominion Bureau of statistics tells us that the present population is 357,762 and that they were nearly all born on the Island, having descended from the English, Irish and Scottish fishermen who established homes there during the 1600's and 1700's.

Progress in the appreciation of dental services came slowly to the scattered population, and the dentists, being graduates of numerous universities outside the Island, did not find it easy to bring uniformity and co-operation among their numbers, but modern legislation now protects both people and practitioner and Newfoundland has an active and interested dental association and a representative on the Board of Governors of the Canadian Dental Association.

Newfoundland is a country with a future. The air and the sea have, in recent years, brought modern concepts of progress to this land and along with such success the 21 dentists of this province look forward to modern dental health services that are second to none in our land.

There is one voluntary dental society called the Newfoundland Dental Association and meetings are held regularly once a month except during the summer months.

CHALLENGE

Over the past fifty years the whole outlook and mode of living for the average Canadian has decidedly changed; his wants have included more home comforts and his habits have kept him from staying home as much as formerly; his varied tastes are receiving more attention; he wishes to travel more and dress better; he feels less obligated to assume responsibility for his children or aged parents, since he can look forward now to receiving assistance in his old age.

The fourteen million Canadians have a dental health condition that according to reports is not showing improvement. Obviously they lack information on the causes of dental defects and they lack a "Churchill" or some such character, who has the ability to instruct and persuade them to plan and win their own battles.

This is the challenge of Canada's dentists.



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Editorial

THE HISTORY OF DENTAL JOURNALISM IN CANADA

THE days ahead are always more intriguing than the days gone by, and yet any community, any city, any country, that is dead to the greatness of the past is ill-equipped to embrace that greatness in the future, and so it is with dental journalism in Canada—we can review our past with profit and interest.

The earliest dental publication in Canada was known as "*The Family Dentist*", edited and published monthly by S. S. Blodgett of Brockville, Ontario. It made its first appearance in 1854, but was a short-lived effort. The second publication was known as "*The Journal of the Times*" published quarterly in Halifax, Nova Scotia, by Drs. Paine and Macallaster. It too was short-lived since it began its career in September 1858 and ended it in June 1860. The next dental periodical to appear was the "*Canada Journal of Dental Science*" which was published monthly in Montreal, commencing in June 1868. This journal was in reality the pioneer dental journal of Canada and was edited by George William Beers. Dr. Beers in his first editorial states "Believing this to be an opportune time to lay the foundation of a Canadian dental literature we offer the Canadian Journal of Dental Science as the literary repository and representative organ of Canadian Dentistry." The project was a commendable one but was a serious undertaking for one man to publish a dental journal and we note that the enterprise failed to receive a remunerative support. Unlike many of the American dental journals published at the time, the Canada Journal of Dental Science was an independent effort and had no connection with any trade house. Shortly after its appearance the publication office was moved from Montreal to Hamilton, Ontario, with Dr. Beers remaining in the former city. Due to the fact that the editor had to bear the financial responsibility of publication while carrying on an active practice and arduous public duties, the task became overwhelming.

The Journal appeared monthly until October 1871. However, the final number of Volume III did not appear until May 1872. The first issue of Volume IV arrived in August 1877 and appeared as a quarterly because of lack of time on the part of the editor. In the November issue the editor bemoaned the fact that forty years before in Montreal fees were 50 per cent higher in proportion

to the cost of living, that the same fee prevailed for extracting a tooth, namely, one dollar. (There is something very realistic in this statement as applied to our day.) He also referred to artificial dentures being made for ten to fifteen dollars and a gold filling for fifty cents. The last issue of the Canada Journal of Dental Science was published in August 1879. In this issue the editor writes as follows: "Like the Millerites' last day it has been a long time coming. I have been taught a lesson, a dentist in active practice, having other hobbies and horses to ride, is overweighted in trying to publish as well as edit a journal. I propose to secure a responsible publisher having full responsibility for bringing out the journal regularly. It will be a few months before it is published."

It turned out to be more than a few months as it was ten years later, in January 1889, that the "*Dominion Dental Journal*" appeared on the scene, which journal absorbed the Canada Journal of Dental Science. Dr. Beers, whose outstanding ability was recognized by the profession, again assumed the editorial duties. The editor had no financial responsibility as the Journal was published by the Nesbitt Publishing Company of Toronto with the financial backing of the C. H. Hubbard Company. When the Hubbard Company failed some of the friends of the Journal assumed the responsibility of publication. This was continued until 1911 when the Consolidated Press of Toronto took over the Journal and published the same regularly until 1934.

In Dr. Beers' first editorial in the Dominion Dental Journal he said: "Grand old Ontario leads the way like a lion among the provinces and there the want of a home journal has been felt, as a man who has lost four wives might pine for a fifth. No foreign journal, however generous, can do the work of a home periodical."

In these early days Dr. Beers had as co-editors Dr. A. H. Hipple of Stratford, Ontario and Dr. C. C. Cogswell of Halifax, Nova Scotia.

Dr. Beers continued as Editor-in-Chief of the Dominion Dental Journal until his death in 1900 from a heart attack which had been hastened by his strenuous work. In 1901 A. E. Webster, M.D., D.D.S., L.D.S., of Toronto, Ontario, became Editor-in-Chief with the following associates: Dr. George S. Martin of Toronto, Ont.; Dr. Carl E. Klotz of St. Catharines, Ont.; Dr. R. E. Sparks of Kingston, Ont.; Dr. C. A. Murray of Moncton, N.B.; Dr. Eudore Dubeau of Montreal, P.Q.; Dr. Frank Woodbury of Halifax, N.S.; Dr. S. W. McInnis of Brandon, Man.; Dr. W. D. Cowan of Regina, Sask.; Dr. Richard Nash of Victoria, B.C.; Dr. J. S. Bagnall of Charlottetown, P.E.I.; Dr. T. L. Hillett of St. Johns, Newfoundland, and G. Lennox-Curtis, M.D. of New York City.

Dr. M. H. Garvin of Winnipeg, Manitoba, became Associate Editor for Manitoba in 1911 and continued in this position until 1934 when the Dominion Dental Journal ceased publication and the Canadian Dental Association commenced the publication of its own official journal known as "*The Journal of the Canadian Dental Association, Le Journal de l'Association Dentaire Canadienne*" with Dr. M. H. Garvin of Winnipeg as Editor-in-Chief and A. E. Webster, D.D.S., M.D.S., M.D., LL.D. as honorary editor and the Consolidated Press, which had so ably published Dominion Dental Journal, as the journal publishers.

In his years as Editor, Dr. Webster won an enviable position in the esteem not only of Canadian dentists but also of American and British dentists because of his ability and untiring efforts for the advancement of the profession. Throughout his entire life the Dominion Dental Journal under his guidance maintained its financial independence and succeeded in leaving a lasting imprint on the annals of Canadian Dentistry. In December 1934, when his health had begun to fail, Dr. Webster relinquished his editorial position and the periodical ceased publication.

The Journal of the C.D.A. is a unique dental publication as from its inception

it has contained a French Section. The first editor of this Section was Dr. Philippe Hamel of Quebec, later followed by Dr. Alcide Thibaudeau of Montreal and later still by Dr. Gerard de Montigny of Montreal who holds this position at the present time and who is developing this Section with splendid efficiency.

The publication of the Journal of the Canadian Dental Association in 1934 was the culmination of four years of preparatory work by a committee of the House of Delegates made up originally of Dr. Philippe Hamel of Quebec, Dr. Fred Conboy of Toronto, and Dr. M. H. Garvin of Winnipeg as chairman. Dr. Conboy subsequently resigned and was replaced by Dr. Stephen A. Moore of London, Ontario. Dr. Moore became the first Business Manager of the new journal and rendered an outstanding contribution during his years of faithful service. He continued in this position until 1943 when Dr. Don W. Gullett, Secretary of the Canadian Dental Association, assumed the duties of Business Manager, a position which he has adorned with his great gifts up to the present time.

During the years other dental journals have appeared on the scene and should be enumerated here.

In 1906 "*Dental Practice*" appeared in Toronto with Dr. Robert J. Reade as editor. It eventually became merged with a medical publication.

"*Ash's Canadian Monthly Circular*" first appeared in 1910 and ended as a quarterly in 1919.

"*Oral Health*" began its career in January 1911 and has continued as a monthly ever since. Dr. Wallace Seccombe of Toronto was editor and proprietor until his death in 1936 when Dr. Thomas Cowling of Toronto became editor. Upon Dr. Cowling's death in April 1950, Dr. Wesley J. Dunn of Toronto became editor. This journal has always been an independent publication.

Next came "*La Revue Dentaire Canadienne*" published in 1918 with Honore Thibault, D.D.S., of Montreal as editor. This publication was discontinued in 1932.

The only Canadian provincial journal is the "*Journal of the Ontario Dental Association*", appearing monthly, and devoted chiefly to the interests of the organization it represents and its members. It began as "*The Booster*" in 1926, but was renamed in June 1931. Dr. F. J. Conboy, Sec.-Treas. of the Ontario Dental Association was editor of *The Booster* and continued in a similar capacity with the present publication until his death in March 1949. Later S. Lee Honey, D.D.S., B.Sc. (Dent.), D.D.P.H. of Toronto was appointed editor. At present Ashley W. Lindsay, D.D.S., M.Sc. (Dent.), LL.D., F.A.C.D. is the editor of this journal. There is also an editorial committee assisting with the work.

In the first issue of the Journal of the Canadian Dental Association it was pointed out that it would be the constant aim of the officers and staff to make this Journal stand highest in honour, rank greatest in dignity, shine brightest in excellence, depict the widest range of triumph in the scientific achievements of our profession and interpret in the fullest possible manner the handwriting on the wall as that handwriting referred to dentistry. It was further stated that it was the ambition of all those connected with this publication that they should have insight into the dental problems of the day, that something might be said to bring a measure of instruction, of inspiration, and of contentment to those who read, for "Happy is the man who has that in his soul which acts upon others as April airs on violet roots. Gifts from the hand are silver and gold, but the heart gives that which neither silver nor gold can buy. To be full of goodness, full of cheerfulness, full of sympathy, full of hope, causes a man to move on human life as stars move on dark seas to bewildered mariners."

We have tried to do just that but it is by the success or failure in meeting these obligations that our Journal of the future must stand to be judged at

the bar of history and so we must wait for tomorrow to give the verdict. If world conditions will allow, the future looks very bright for dental journalism in Canada. The words of Lord Tennyson so aptly describe our position:

"I dipt into the future
far as human eye could see
Saw the vision of the world
and all the wonder that would be."

M.H.G.

DR. DONALD WERDEN GULLETT, Secretary, C.D.A.

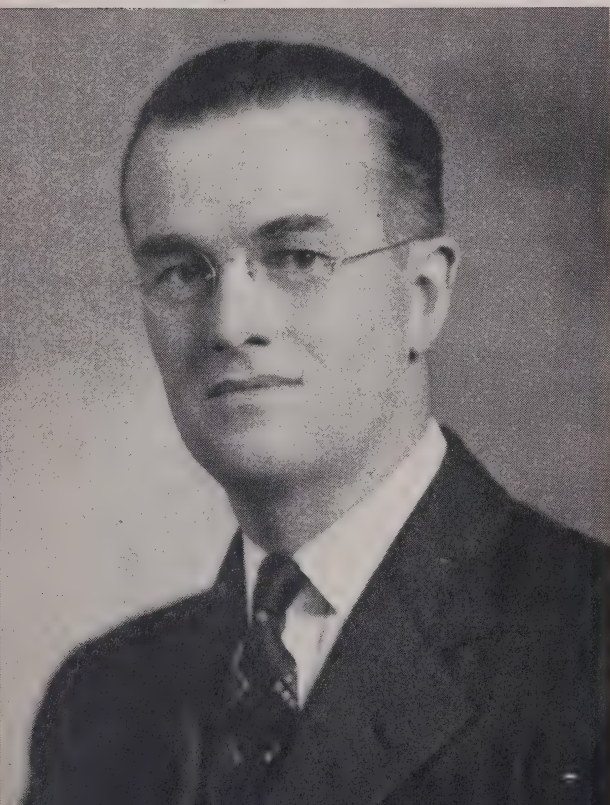
Born at Wellman's, Ontario, Dr. Don Gullett received his early education at Syracuse, N.Y., and Picton Collegiate Institute. He served as a gunner in World War I at the conclusion of which, he entered the Faculty of Dentistry, University of Toronto, as a member of the class of 1923. Following graduation he engaged in the practice of his profession at Picton for 17 years, where he took an active interest in community affairs. He was Chairman of the School Board, President of Kiwanis, Treasurer of the United Church and held office in many other local organizations.

In 1936, he was elected a member of the Board of the Royal College of Dental Surgeons, and in 1940, became Registrar-Secretary of the Board. In 1942, he was appointed Secretary of the Canadian Dental Association, and since that time has served both organizations. His administrative ability, as well as his untiring efforts, have contributed in no small measure, to the outstanding progress made by the Canadian Dental Association during the past ten years.

He is a Fellow of the American College of Dentists, and an honorary member of both the American Dental Association and the British Dental Association,

as well as several other dental organizations. Don's host of dental friends across Canada wish for him many more years of effective service to the profession.

G. VERNON FISK



← **DR. GULLETT**

PAST PRESIDENTS

of the

Canadian Dental Assoc.

L'Association Dentaire Canadienne

Dr. F. Arnold Stevenson

Dr. Stevenson was born in Reading, England, July 15, 1864. He came to Canada at the age of ten, when his father accepted a call to the Pulpit of a Montreal Church. He spent seven years in commercial life before entering Harvard University Dental School from where he was graduated in 1888. Following graduation he practised in Montreal until his death, August 29, 1934.

At the time he opened practice there was no dental school in this community and it was largely due to his efforts that the Dental College of the Province of Quebec was founded. He was donor of the Stevenson Gold Medal for the highest standing in the final year of the Faculty of Dentistry at McGill University.

He was a charter member of the Montreal Dental Club and President in 1910. He was elected President of the College of Dental Surgeons of the Province of Quebec. He was also President of the Dominion Dental Council, First President of the Canadian Dental Association and a Fellow of the American College of Dentists.

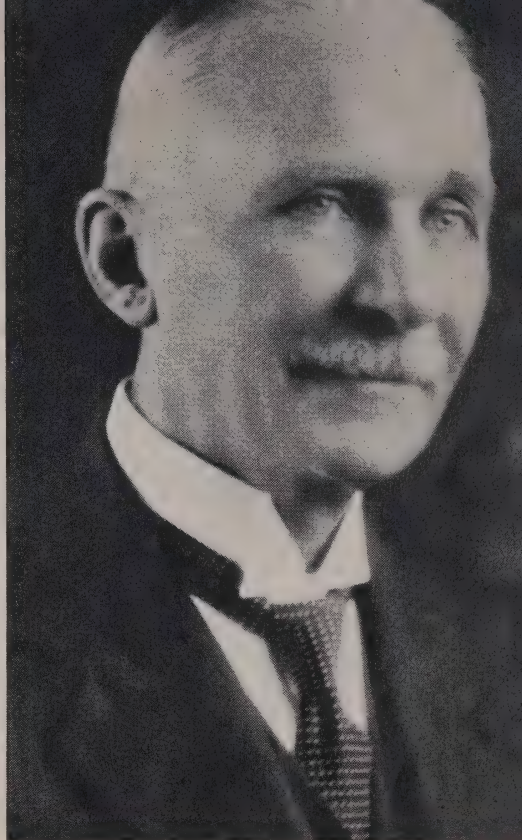
A. L. Walsh

Dr. Eudore Dubeau

Dr. Dubeau was born in Quebec City and obtained his B.Sc. degree in 1892 from Laval University and his D.D.S. degree from Bishop's Univ. in 1895. He was one of the founders of the Federation Dentaire Internationale of which he is now the only one surviving. He was also one of the founders of the Canadian Dental Association in 1902, being President in 1904. About the same time, he was elected Secretary of the College of Dental Surgeons of the Province of Quebec. He was Dean of the University of Montreal Dental School from 1920 to 1945. He was a member of the Montreal City Council under many administrations.

The French Republic bestowed on him the Officer d'Academie—1909, Officier de l'Instruction Publique—1916, Chevalier de la Legion d'Honneur—1925, and "Honneur et merite" — (Haiti) — 1935. Has acted as Consul for the Republic of Portugal, in Montreal, since 1931. Was decorated Chevalier of the Order of Christ of Portugal—1936. Was Founder, First-President and Life Member of "Le Cercle Universitaire", of Montreal. Was co-founder of the University of Montreal Alumni Association.

Armand Fortier





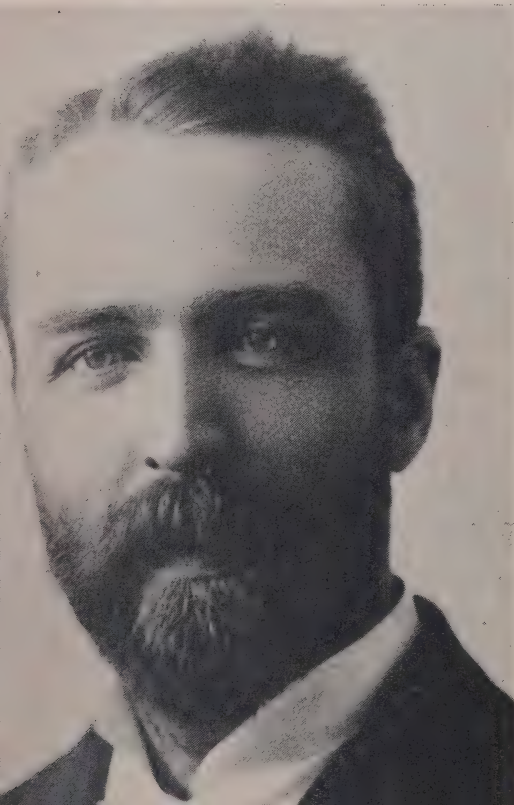
Dr. Stanley W. McInnis

Dr. McInnis was born at St. John, N.B. in 1865, was graduated from Philadelphia Dental College in 1889 and located at Brandon the same year, making a total of 12 dentists registered in Manitoba at that date.

For many years he was a leading spirit in the Brandon Operatic Society, one of the leading musical organizations in Western Canada. He was a Director of the Brandon Fair, and the Brandon Turf Club; also Chairman of the City Parks Board. In 1899 he was elected to represent Brandon City in the Provincial Legislature. In 1902 he was acting speaker of the Legislature and later became Provincial Secretary and then Minister of Education. He undertook to raise by private subscription \$50,000 for the establishment of a provincial tuberculosis sanitarium.

He was made Secretary of the Manitoba Dental Association in 1891, was President for several years, and was continuously on the Board of Directors from 1891 until his untimely death in 1907. He helped organize the Canadian Dental Association and the Dominion Dental Council. He was Vice-President of the Council in 1905 and 1906 and was President of the Canadian Dental Association in 1906.

J. F. Morrison



Dr. James M. Magee

Dr. Magee was born of United Empire Loyalist stock at Saint John, N.B. in 1861, was graduated from Pennsylvania College of Dental Surgery in 1893 and commenced practice in Saint John. He was a charter member and President of the Canadian Dental Association, charter member and President of the Dominion Dental Council and held like office in the New Brunswick Dental Society.

In 1915 he enlisted in the Canadian Army Dental Corps and served until 1921. In 1917 he was appointed Assistant Director of Dental Services with the rank of Major. Dr. Magee was an active churchman and gave liberally of his time to the Red Cross, Canadian Club, Navy League and Saint John Ambulance Society and also made many contributions to current dental literature, some of his articles being quoted extensively in both United States and Canada.

He was twice champion and Past-President of St. John Golf Club; and champion of Riverside Golf and Country Club. His name is engraved on every permanent trophy now in competition for golf in this organization. He was President of St. John Curling Club.

H. S. Thomson

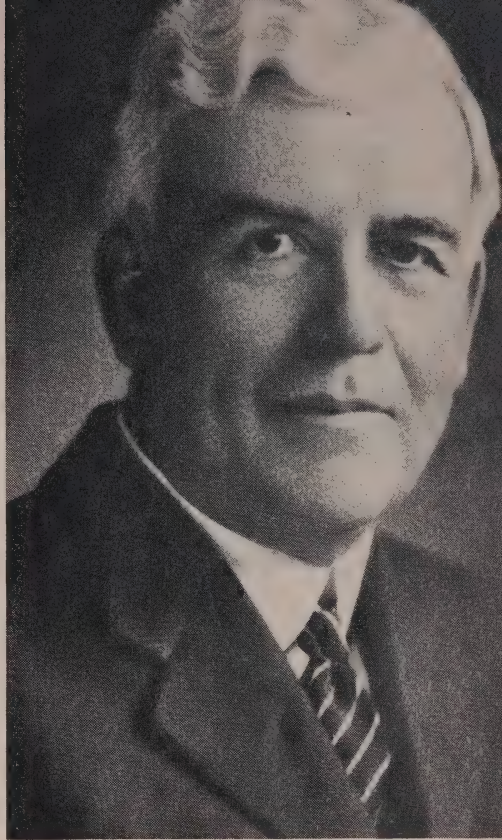
Dr. Albert Edward Webster

Dr. Webster was born near Creemore, Ont., in 1867, was graduated from the Chicago College of Dental Surgery in 1893; later from the Royal College of Dental Surgeons (Ontario) in 1894 and in medicine from the Rush Medical College, Chicago, in 1897. He practised first in Collingwood and later in Toronto. He was appointed Professor of Operative Dentistry, and from 1915 to 1923 served as Dean of the Royal College of Dental Surgeons. When in 1925 the College became the Faculty of Dentistry, Univ. of Toronto, he continued as Professor of Operative Dentistry.

He was President, Canadian Dental Association (1908-10); the American Institute of Dental Teachers; the International Institute of Dental Research; and the Toronto Dental Society, also a Fellow of the American College of Dentists and for 35 years was Editor of Dominion Dental Journal.

In 1932 he was awarded the Jarvie Fellowship Medal for his research in root canal therapy. The Univ. of Toronto honoured him during the same year when he became the second dentist to receive the LL.D. (honoris causa). Dr. Webster died in 1935 but will long be remembered for his wise and generous guidance of numerous generations of students.

R. G. Ellis



Dr. Walter D. Cowan

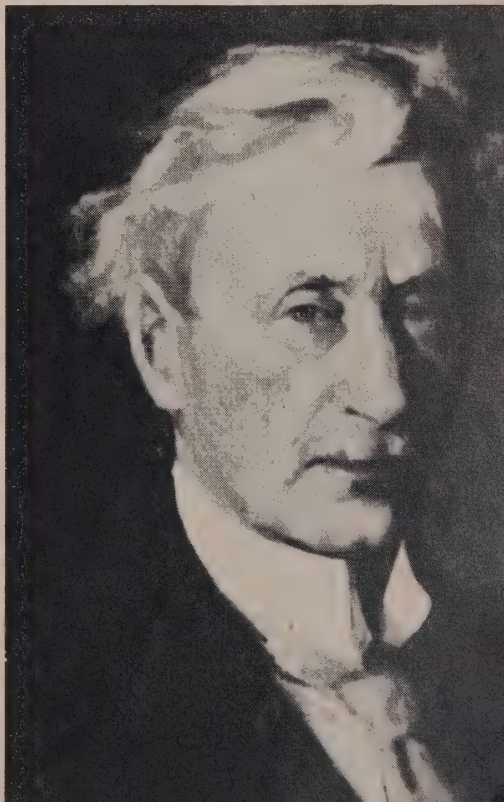
Dr. Cowan was born in Ontario, and was graduated from the Baltimore College. He came to Regina, North West Territories in 1890 and was instrumental in having the College of Dental Surgeons of the N.W.T. established and was the first President of the Council of the College of Dental Surgeons of the N.W.T. When the College of Dental Surgeons of Saskatchewan was formed, he became the first President of the Council of the College.

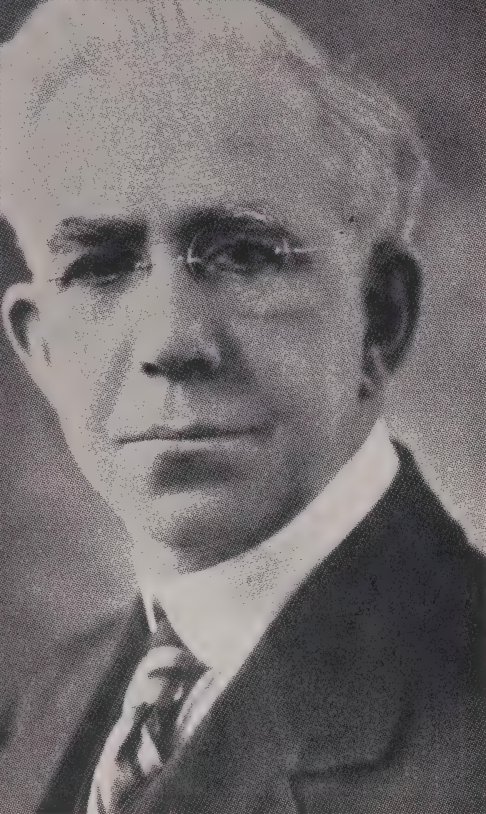
He took part in the organization of the Dominion Dental Council and was the first Secretary. He was Mayor of Regina in 1916-17 and was the Conservative member of Parliament in the Union Government of Sir Robert Borden. Lord Bennett spoke very highly of his ability.

He was President of the C.D.A. 1910-12. During the First War he was Command Dental Officer at Regina, of the C.D.C. with the rank of Major. He was honoured by the Saskatchewan profession, who had a portrait painted and it hangs in the Univ. of Saskatchewan. He was made also an honorary member of the Regina Dental Society.

Dr. Cowan died at Regina, September 29, 1934.

L. D. Fasken





Dr. George F. Bush

Canada and especially dentistry profited greatly because Dr. George F. Bush as a boy emigrated from Yorkshire, to the then small town of Winnipeg, in 1877. Even at this tender age he had learned to play all the instruments in a band, so a short time later we find him organizing a band in Winnipeg.

His interest in music and the fine arts was always evident, he having been judge of fine arts and handicraft at the exhibition for many years. He was also organist and choirmaster at Holy Trinity and later at St. Michael's and All Angels Anglican Churches for over thirty years.

His professional career began as an office boy for the late Dr. Good (later an eminent eye specialist). Two years later he indentured with the late Dr. J. L. Benson as a dental student.

He served as follows: President of the Manitoba Dental Association; an organizer of the Canadian Dental Association and the Western Canada Dental Society; and for many years member of the Dominion Dental Council; President of the Canadian Dental Association; Secretary and later President of the Dominion Dental Council.

H. J. Merkeley



Dr. F. W. Barbour

Dr. Barbour was born at Saint John, N.B., July 31, 1871, and received his dental education at Boston Dental College, Boston, Mass., graduating with leading honours and as President of the Class of 1891.

He established practice in Fredericton, N.B.

He was examiner of the Dominion Dental Council, 1906 to 1914, and President of the Canadian Dental Association, 1914 to 1916.

Dr. Barbour was commissioned a Captain in the Dental Corps of the Canadian Army, being in charge of the Base Hospital Dental Clinic, Toronto.

He was a member of the Toronto Dental Association and the Ontario Dental Association. For many years he was a contributing editor to Oral Health.

Dr. Barbour died in Toronto, November 18, 1941.

Mr. R. M. Barbour

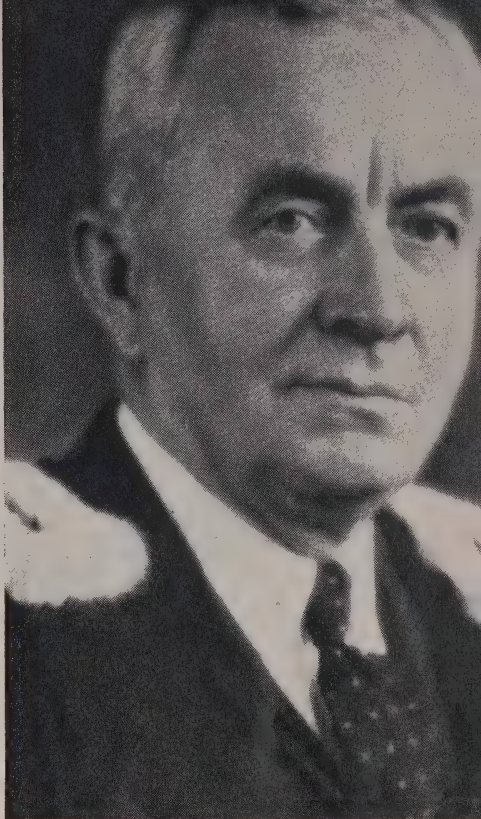
Dr. Joseph Nolin

Dr. Nolin was one of French Canada's most distinguished dentists. He was born in St-Johns, Quebec, in 1863, and received his dental education at the Philadelphia Dental College. In 1903, together with Dr. Eudore Dubeau and Dr. J. G. A. Gendreau, he founded the Laval Dental School, now the Faculty of Dentistry of the Univ. of Montreal, later becoming Vice-Dean of the Faculty. He was a President of the Canadian Dental Association and served for many years on the Board of Governors and Examiners of the Quebec College of Dentists. In 1947 the Univ. of Montreal founded the Nolin Prize to be awarded annually to the student most proficient in dental surgery. Prior to this, he had been made a Doctor of the Univ. of Montreal.

He is well remembered for his witty lectures on the human physiognomy. Perfectly bilingual, Dr. Nolin took part in many educational conventions throughout Canada and the United States. He was a keen student of English literature and once lectured on Charles Dickens. France recognized his scientific and literary achievements by naming him "Officier de l'Instruction Publique."

Dr. Nolin died in 1948 in his 85th year.

E. Charron



Dr. Frank Woodbury

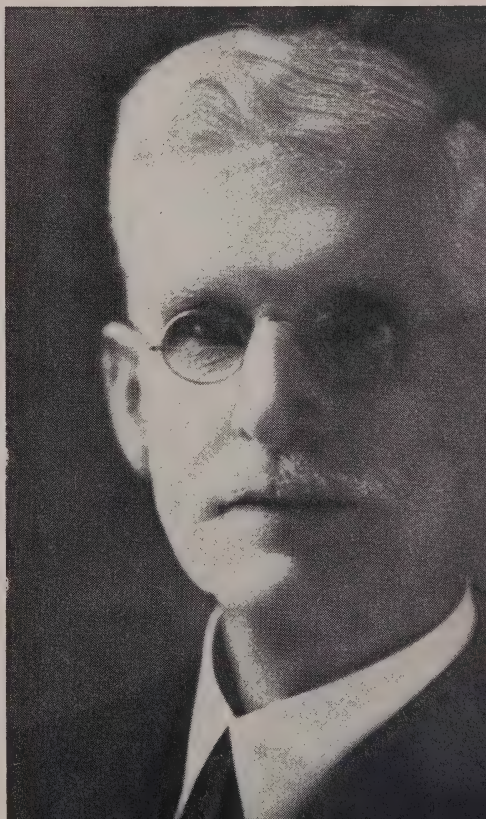
Dr. Woodbury was born as Spa Springs, Nova Scotia, in 1853 and died at Halifax, in 1922. A graduate of the Pennsylvania College of Dental Surgery, 1878, he practised in New York State until he moved to Halifax in 1884.

He was a member of the Provincial Dental Board from its inception in 1891 until his death and was its first Registrar: also at one time President of the Nova Scotia Dental Association. He represented Nova Scotia on the Dominion Dental Council from its founding in 1904 until his death, at one time being its President.

He was Dean of the Dalhousie Dental School from its beginning (as the Maritime Dental College 1908-1911) until his death. Thus he brought to the chair of the Canadian Dental Association in 1918 a wide experience in dental organization, administration and education. Dalhousie University honoured him with the degree of LL.D.

His chief non-dental concern was a life-long interest in religious education. As a member of the International Sunday School Association he headed a commission which toured the West Indies in 1906 in the interests of this interdenominational movement.

W. Woodbury





Dr. Howard Whittaker

Dr. Whittaker was born in London, Ont. He was graduated from the Chicago College of Dental Surgery in 1904 and remained on the staff for two years as a demonstrator before commencing practice in Edmonton. He was a charter member of the Edmonton Dental Society and later became President. He was a member of the Board of Directors of the Alberta Dental Association for some 12 years and Sec.-Treas.-Registrar for 10 years, though his term in this office was interrupted by one term as Vice-President.

He was the provincial representative on the Dominion Dental Council for 12 years and served as President from 1920-22 and during these 2 years was also President of the Canadian Dental Association. He also served as representative of the Alberta Dental Association on the Senate of the University of Alberta for 6 years.

He was made a Fellow of the American College of Dentists in 1923 and recently was made a life member of the Edmonton Dental Society. Dr. Whittaker was always noted for one peculiarity, he was never found in his office after 5 o'clock.

R. A. Rooney



Dr. Sydney Wood Bradley

Dr. Bradley was born Sept. 3, 1879, at Hazeldean, Ont. and educated at Hazeldean Public School and Smith's Falls High School. He taught school for three years before entering the Dental School of the R.C.D.S., at Toronto, where he was graduated in 1906.

After graduation he conducted general practice at Richmond, Ontario until 1918, then took specialized work in Orthodontia and established himself in that specialty in Ottawa.

Dr. Bradley has a long and honourable record not only in the practice of his profession but in his work and leadership in organized dentistry. Very briefly his many achievements may be summarized as follows: Past Pres. Ottawa Dental Society; Past Pres. Eastern Ontario Dental Association; Past Pres. Board of the R.C.D.S. Ontario; Past Pres. Canadian Dental Association; Past Pres. Dewey Orthodontic Alumni; Vice-Pres. North Eastern Association of Orthodontists; Honorary Member Ontario Dental Association; Honorary Member Canadian Dental Association and a Fellow of the American College of Dentists.

He is a member of the Anglican Church and of the Masonic Order.

G. L. Cameron

Dr. George K. Thomson

Dr. Thomson was born at Newcastle, N.B. March 26, 1870. He moved to Annapolis, N.S. where he entered a drug store and passed his pharmaceutical examination in 1888. He later was graduated from Philadelphia Dental College in 1892 and returned to Annapolis to practise. He moved to Halifax in 1897 where he continued in practice until his death in 1935.

He was President, N.S.D.A. 1897-98; Secretary-Registrar, Provincial Dental Board 1898-1923; Chairman, Oral Hygiene Educational Committee, 1921-26. He had a long association with the Dominion Dental Council, of which he was the N.S. representative from 1922 until his death.

He was active in the Ashburn Golf Club, Halifax City Club, Waegwoltic, etc. and served in the Canadian Army Dental Corps in Halifax, 1915-1918. He was elected a Fellow of the American College of Dentists in 1925 and was President of the Canadian Dental Association 1924-1926. He was a member of the Dalhousie Dental School teaching staff from its inception in 1908, becoming Dean, on a part-time basis, in 1925 and continued in that office until his death.

J. S. Bagnall



Dr. John W. Clay

Dr. Clay was born in England and at an early age moved to Toronto. He was graduated from the Univ. of Pennsylvania in 1905 and from the R.C.D.S. of Ontario in 1906 and has practised in Calgary ever since. He was Registrar of the Alberta Dental Assoc. 1920-27; President of the Canadian Dental Association 1926-28; and for many years has been a Fellow of the International College of Dentists. He has been an honorary lecturer at the Dental School of the Univ. of Alberta since 1939 and a member of the Staff of the Holy Cross Hospital since 1941.

Dentistry in Canada, and particularly Alberta, was honoured when the Univ. of Alberta awarded him the honorary degree of LL.D. in May 1950. He is now President of the Western Canada Dental Society which meets at Jasper Park in June 1953.

Dr. Clay, by his devotion to his profession, continuous effort and self-sacrifice, helped to lay the foundations for dentistry in Canada and by his excellent leadership and kindly interest in recent graduates has set an example to the profession of Alberta.

R. R. McIntyre





Dr. Frederick Joseph Conboy

Dr. Conboy was born in Toronto in 1881 and died in 1949. He was graduated from the R.C.D.S. of Ontario in 1904 and commenced practice in Toronto. He became a Director of the Ontario Social Service Council, was an Elder of Westmoreland United Church and Superintendent of the Sunday School. He was prominent also in the Masonic and Orange Orders and the Oddfellows. He was a School Trustee on the Toronto Board of Education from 1909 to 1914 and in 1911 was made Chairman.

He was a Professor on the Dental Faculty from 1917 until 1946. In 1925 the Ontario Government appointed him its first Director of Dental Services. He was President of the Ontario Dental Assoc. in 1923-24 and for fifteen years served as Sec. Treas. He was President of the Canadian Dental Research Foundation and a Director of the Canadian Dental Hygiene Council, also a Fellow of the American College of Dentists.

In 1928-29 he was President of the Canadian Dental Association. In 1935 he was elected an Alderman of the City of Toronto for two years, four years as Controller and four years as Mayor, being twice elected by acclamation.

E. A. Grant



Dr. M. H. Garvin

Dr. Garvin was President of the C.D.A. 1929-30. Born at Newcastle, Ontario, Harry spent his early years at Hamilton where he won a scholarship in Art. He was graduated from Univ. of Pennsylvania in 1902 and the R.C.D.S. of Ontario in 1903, practising in Winnipeg since graduation. He has been President of the Winnipeg Dental Society, the Manitoba Dental Assoc., the Western Canada Dental Society (twice) and the American Academy of Periodontology. He is a member of the Associate Committee on Dental Research of the National Research Council, and in 1918 won second prize in the Canadian Dental Research contest. He is a Fellow of the International College of Dentists. He has had 21 original papers published in journals other than the C.D.A. Journal. He is Chairman of Bethesda Church Board.

His greatest achievement is his success as Editor-in-Chief of the Journal of the C.D.A., which Journal he helped to organize in 1935, and he still gives up to half his time on this project.

In 1945 the Western Canada Dental Society established the M. H. Garvin Scholarship Fund to the Univ. of Alberta in recognition of his service to Canadian dentistry.

Kenneth M. Johnson

Dr. A. W. Faulkner

Dr. Faulkner was born in Selmah, Hants County, N.S., in 1885. On completion of high school he attended the Provincial Normal School in Truro, the Mechanic Science School graduating in 1904 and taught school in Truro, Pictou, New Glasgow and Stellarton. In 1908 he entered the Maritime Dental College in Halifax, graduating in 1912, being a member of the first graduating class in dentistry from Dalhousie University.

He has practised in Halifax continuously since graduation. Appointed to the teaching staff of the Faculty of Dentistry in 1913, he served continuously until his resignation in 1941. He was President of the Nova Scotia Dental Association in 1916 and member of the Provincial Dental Board of Nova Scotia for ten years, four of which were served as Secretary-Registrar. In 1926 he was elected to represent Nova Scotia on the Board of Delegates of the Canadian Dental Association, serving until 1941. He was President of the Canadian Dental Association for the 1930-32 term.

In 1931 he was honoured with a Fellowship in the American College of Dentists. He was elected an Alumni Governor in 1946 for a three-year term. He is a member of the Halifax Dental Society and his chief hobbies are gardening and woodworking.

G. M. Dewis



Dr. Philippe Hamel

Dr. Hamel was born in Quebec City in 1884. In 1903 he obtained his B.Sc. degree and in 1907 received his D.D.S. degree from Laval University. He was especially attracted to music and organized an instrumental ensemble of some 20 musicians and was also an active trumpet player in La Symphonie de Quebec.

He was representative of the Quebec division to the College of Dental Surgeons of the Province of Quebec for over ten years. He was President of the C.D.A. 1932-1933 and its third French speaking President.

He was Chairman of Le Congrès des Chirurgiens-Dentistes de Langue Française de l'Amerique du Nord in 1941 and head of the dental clinics at l'Hôpital du St-Sacrement and l'Hôpital de l'Enfant-Jesus. He was the first editor of the French section of the Journal of the Canadian Dental Association, also aggregate professor to the Laval Medical Faculty. He was a member of l'Academie Internationale d'Odontologie, of the American Academy of Dental Medicine, and honorary member of l'Association Dentaire Franco-Americaine.

In 1934, he joined the political party named L'Action Liberale Nationale and was a member of Parliament of the Province of Quebec (1935-1939).

G. Ratté





Dr. George Lynch Cameron

Dr. Cameron was born in Nelson, Man., a son of the manse; graduating in dentistry from McGill in 1908; practised in Swift Current and raised a family of four —1 dentist, 2 doctors and 1 doctor's wife.

In World War I he was 2nd in command of the 1st Canadian Infantry Battalion in France when wounded in 1918, mentioned in despatches and awarded the D.S.O. During World War II he served as Deputy Director-General of Dental Services at N.D.H.Q., Ottawa; awarded the O.B.E. in 1944 ; and in 1945 retired with the rank of Colonel.

He has been President of the Swift Current Dental Society, Saskatchewan College of Dental Surgeons, Western Canada Dental Society, and the Canadian Dental Association. He was made an honorary life member of the Saskatchewan College of Dental Surgeons in 1950.

When living in Swift Current he was Chairman of the Hospital, Public School, and Collegiate Boards, a councillor and alderman, an executive member of the Provincial and Dominion Liberal Associations, and P.G.M. of the I.O.O.F. He is now residing in Ottawa, where he is an active member of the Royal Ottawa Golf Club, the Rideau Curling Club, and St. Andrew's Presbyterian Church.

C. W. Sheridan



Dr. Robert L. Pallen

Dr. Pallen was born in Dalhousie, New Brunswick, in 1885.

He studied telegraphy with the Intercolonial Railway. At the age of 19 he was appointed telegraph operator and soon after left for British Columbia. He was employed by the C.P.R. as agent at Kamloops, Ashcroft, Agassiz, and Mission until 1913.

He was graduated from North Pacific Dental College at Portland in 1916 and began practice in Vancouver. Soon after, he became school dentist in Vancouver and in 1950 retired from the Metropolitan Health Board after 33 years as Supervisor of the Dental Department of Vancouver Schools.

In 1932 he was appointed B.C. delegate to the Board of Governors and became President of the Canadian Dental Association 1936-1938. He was re-elected member of the Council of the College of Dental Surgeons of B.C. for over 25 years and President for several years.

In 1933 he was made a Fellow of the American College of Dentists.

As Registrar-Treasurer of the College of Dental Surgeons of B.C. he still retains a keen interest in his profession.

E. C. Jones

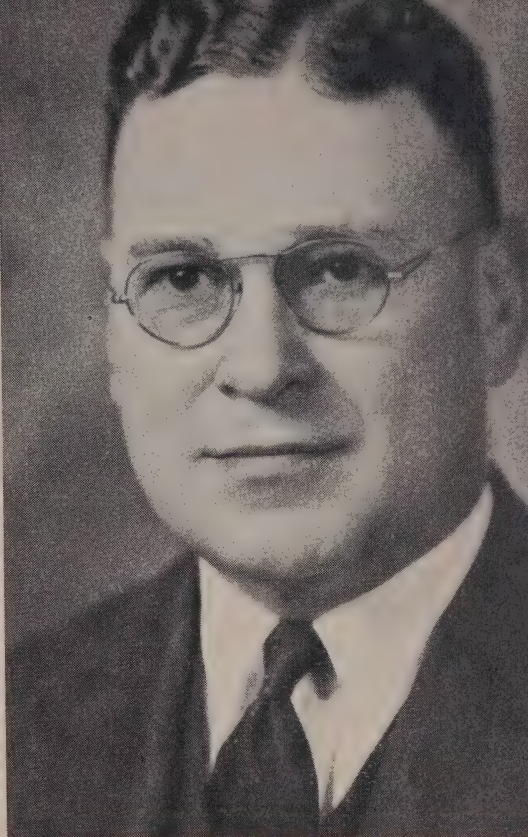
Dr. S. A. Moore

Dr. Moore was born in Belleville, Ontario. He spent some time in the business world before graduating from the Royal College of Dental Surgeons of Ontario in 1919. In 1922 he was graduated from the Dewey School of Orthodontia and practised this specialty in London, Ont., until his recent retirement.

He is a Past President and Secretary of the London Dental Society, a member of the Board of the Ontario Dental Association and was President of this body in 1933. He was President of the Canadian Dental Association 1938-1940 and Business Manager of the Journal of the Canadian Dental Association 1934-1942.

He was appointed Honorary Colonel of the Royal Canadian Dental Corps in 1940 and a member of the Defence Medical and Dental Services Advisory Board at Ottawa. He was made an honorary member of the Canadian Dental Association and the Essex Kent and London Dental Society. He is also a member of the Masonic Order A. & A.S.R., Mocha Temple, Shrine, also a member of the London Hunt and Country Club.

Stanley R. Moore



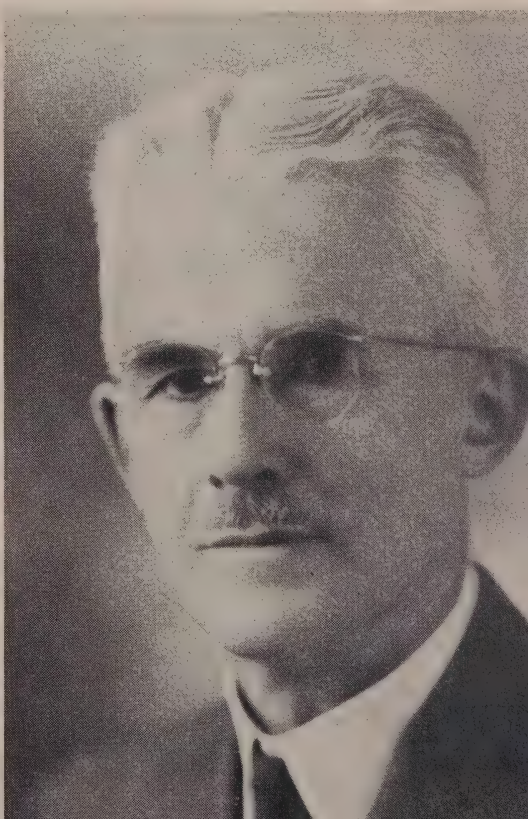
Dr. William W. Woodbury

Dr. Woodbury, prominent in dental education in Canada, more particularly identified with the development of dentistry in Dalhousie University, was born in Halifax in 1882.

He received his B.Sc. degree from Dalhousie University. Graduating from the Philadelphia Dental College with a D.D.S. degree in 1908, he returned to his native city to establish practice. He was appointed lecturer and demonstrator in prosthetic dentistry, Dalhousie Dental School. In 1910 he became Professor of Orthodontics, a professional status which he still enjoys.

In 1918 he enlisted in the Canadian Dental Corps, serving as Captain for a period of two years. On discharge he established an exclusive practice in orthodontics, in which he is still actively engaged. Two periods of service in dentistry in Dr. Woodbury's career stand out pre-eminently, that of Dean of the Faculty of Dentistry, Dalhousie, 1935-1947, and Presidency of the C.D.A. 1940-1942. He has served also as President of the Halifax Y.M.C.A., Halifax School for the Blind, Provincial Dental Board, and Halifax Dental Society. He is an active member of St. Andrew's United Church.

O. L. Croft





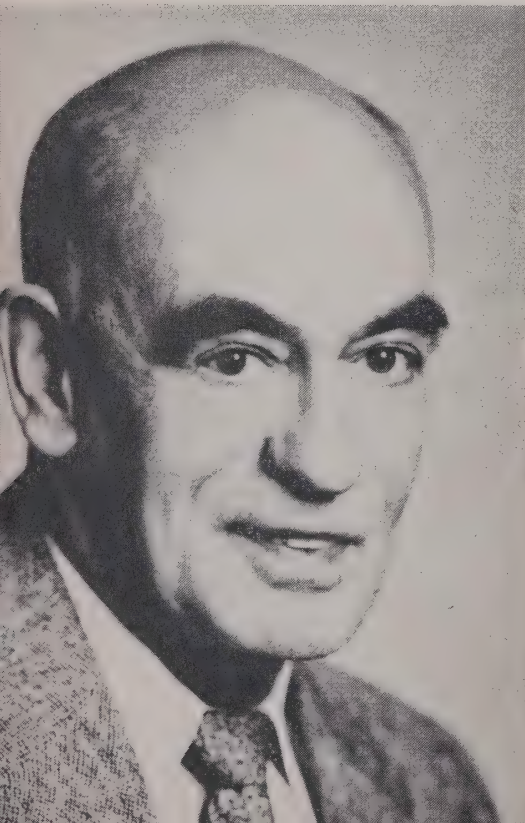
Dr. Arthur Lambert Walsh

Dr. Walsh was born in Kingston, Ontario. He was graduated in Dentistry from McGill University in 1920. Following graduation he was appointed as a Clinical Demonstrator in the Faculty of Dentistry and successively held the appointments of Director of the Dental Infirmary, Associate Professor of Operative Dentistry, and Professor of Oral Surgery, and was appointed Acting Dean in 1927 and Dean in 1940.

He received the Coronation Medal by His Majesty, King George VI in 1937; was made a Fellow of the American College of Dentists in 1938; and was given an Honorary D.D.S. by the University de Montréal in 1945.

He was President of the American Association of Dental Schools, 1941-1942; President of the Canadian Dental Association, 1942-1943; President of the Montreal Dental Club, 1927-1928. He is also a Past President of the Montreal Rotary Club; Chairman of the Children's Dental Committee of the Junior Red Cross; Consultant Dental Surgeon of the Montreal General Hospital and Children's Memorial Hospital; Member of the Delta Sigma Delta and the Omicron Kappa Upsilon fraternities; and Chairman and Founder of the Council on Dental Education of the C.D.A.

A. G. Racey



Dr. Robert Arthur Rooney

Dr. Rooney was born in Shelburne, Ontario. He was graduated from the Chicago College of Dental Surgery in 1911, came west the same year and has practised in Edmonton, Alberta, since that time. He was President of the Edmonton Dental Society in 1917 and of the Alberta Dental Association in 1933. From 1936 he has served as Secretary-Treasurer-Registrar. In 1940 he became a member of the Board of Delegates of the Canadian Dental Association and was made President in 1943.

The outstanding accomplishment of his year in office was the incorporation and legal establishment of the Canadian Dental Association. He is still Chairman of the Committee on Auxiliary Services of the C.D.A. and Vice-President of the Pacific Coast Conference. He served on the Faculty of Dentistry, University of Alberta, from 1940 to 1951, advancing to Professor of Prosthetic Dentistry and head of that department. In 1945 he was made honorary member of the Edmonton Dental Society.

Art has an enviable reputation as a sportsman, being President of the Alberta Fish and Game Association 1942-43. His hobbies are shooting, fishing, gardening and home carpentry.

H. R. MacLean

Dr. Harvey W. Reid

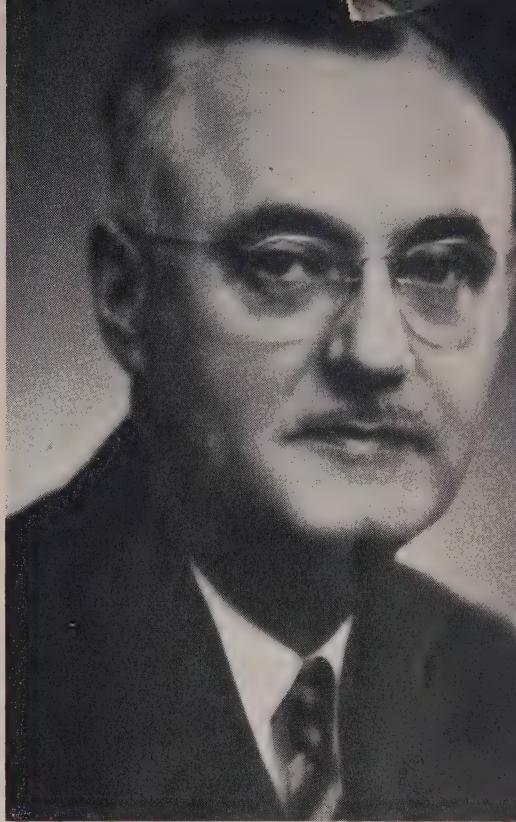
Dr. Reid was born in Varna, Ontario, and following attendance at Clinton Collegiate and Model School, taught school for two years before entering the R.C.D.S. in 1914. During his undergraduate course at the University of Toronto he was respectively President of his class, President of the Students' Parliament, goal-keeper of the Dental Soccer team and Business Manager of the famous Dentals hockey team, 1917 Canadian Champions.

Upon graduation he enlisted and served Overseas in the Royal Canadian Dental Corps. Following his discharge he established himself in practice in Toronto. Early destined to be a leader he has served organized dentistry in the following capacities: Member of the Board of the R.C.D.S. for 12 years, President in 1947-49; President and Honorary Member of the Academy of Dentistry, Toronto; Member C.D.A. Board of Governors for 10 years, President C.D.A. 1945-46. He is presently Chairman of the Health Insurance Studies Committee.

In 1949 he received the Honorary Degree of Fellow, Dental Surgery, Royal College of Surgeons (England).

He is a Fellow of the American College of Dentists, a member of the Senate, University of Toronto, and an active Kiwanian.

G. V. Fisk



Dr. Victor Densmore Crowe

Dr. Crowe was born in Stewiacke, N.S., in 1894. He enlisted as a Sergeant in the First Great War, and transferred to the First Canadian Dental Corps. At the close of the conflict he enrolled in the Dental School of Dalhousie University from which he was graduated in 1921 and entered practice with the late Dr. R. E. Randall. He continued practising in Truro until his death in July, 1949.

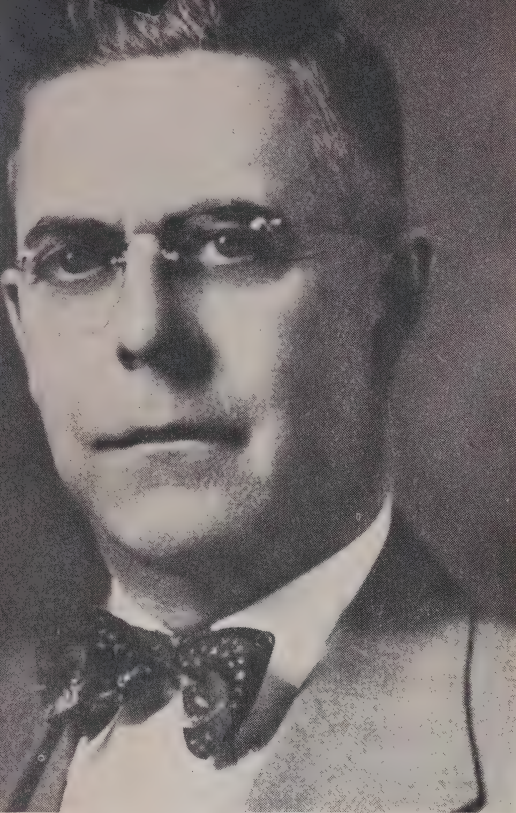
For many years he gave of his time and talents to the Colchester County Tuberculosis League, of which he was President at one time. He was very active in St. John's Anglican Church, Truro, where he held a number of offices of responsibility and was a member of the Board of Governors of King's College, Halifax. He was a member of the Masonic Order, the Independent Order of Foresters and a past president of the Truro Kiwanis Club.

He was President of the Nova Scotia Dental Association 1931-36; member of Board of Governors of the C.D.A. 1942-48; and President of the Canadian Dental Association 1946-47.

His chosen profession was enriched by his unselfish and untiring efforts.

H. M. Eaton



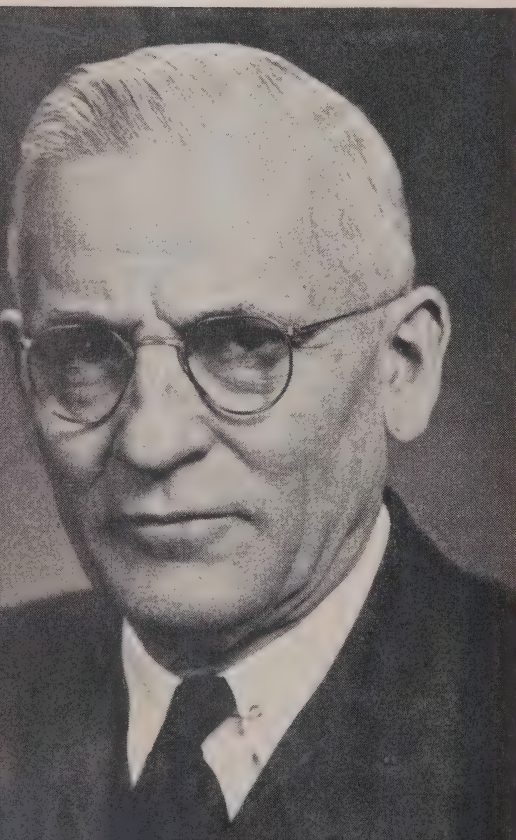


Dr. John Kenneth Carver

Dr. Carver was born in 1901 and died in January 1951. He was graduated from the Faculty of Dentistry, McGill University, 1923 and practised in Montreal except for four years while in the Armed Services. He was a Major, Royal Canadian Dental Corps, stationed at Headquarters, Ottawa; Lecturer in Dental Ethics and Dental History, McGill University; Governor of the College of Dental Surgeons of the Province of Quebec for 15 years and Vice-President of that body. He was the representative for the Province of Quebec to the Canadian Dental Association for many years and became President in 1947.

He was Past-President of the Montreal Dental Club 1941; Fellow of the American College of Dentists 1950; Fellow of the International College of Dentists 1950; Chief of Dental Services of St. Mary's Hospital, Montreal; member of the Medical Board of St. Mary's Hospital, Montreal; Past Supreme Grand Knight of the Knights of Columbus, Montreal; Charter Member Westmount Rotary Club; Past-President of the Westmount Rotary Club; Vice-President of the St. Patrick's Society, Montreal, and Charter Member of the Gentlemen Ushers of St. Augustine de Canterbury Church, Montreal.

Johnston W. Abraham



Dr. Howard J. Merkeley

Dr. Merkeley was born at Chesterville, Ontario, in 1886.

It is difficult to understand how Howard, with his vivacity ever managed to study for dentistry. He certainly crowded sufficient other pursuits into long days to have satisfied an ordinary individual. His help to, and consideration of, younger and other members of his profession cannot be over-emphasized. He has been President, Winnipeg Dental Society; Registrar and later President, Western Canada Dental Society; President, C.D.A.; and is at present Manitoba representative on the Dental Council of Canada. He received his master's degree in Dentistry many years ago and more recently was made a Fellow of the American College of Dentists.

Dr. Merkeley beamingly relates tales of his experiences as a railroader and a bushman previous to graduation from the R.C.D.S. in 1911.

He has imported and experimented with many non-native animals, birds, flowers and fruits, developing them to withstand the rigours of our Manitoba winters.

Howard is justly proud of his professional family, consisting of a Doctor of Dental Surgery, two Doctors of Medicine and a nurse.

J. G. Elsey

Dr. George Vernon Fisk

Dr. Fisk was born in Lorneville, Ontario. He was graduated from the Faculty of Dentistry, University of Toronto, in 1917 and then for 3 years was indentured with the late Dr. George Grieve. Since then he has practised his specialty of orthodontics. He was President of the Great Lakes Association of Orthodontics in 1936. He has been Chairman of the Hospital Dental Services Committee; the Research Committee; the Journal Committee and the Public Relations Committee of the Canadian Dental Association. He served as President of the Association in 1949-50.

He is an Associate of the Department of Orthodontics at his alma mater and has had much to do with the organizing of the Dental Department in the new Hospital for Sick Children. He was made a Fellow of the American College of Dentists in 1945.

Vernon is an accomplished musician and for many years was organist in one of Toronto's larger churches. He is an active Rotarian. He and Olive have two boys, Murray, a graduate in Medicine and presently proceeding to the Specialty of Gynecology, and Ross, a second year student in the Faculty of Dentistry.

Harvey W. Reid



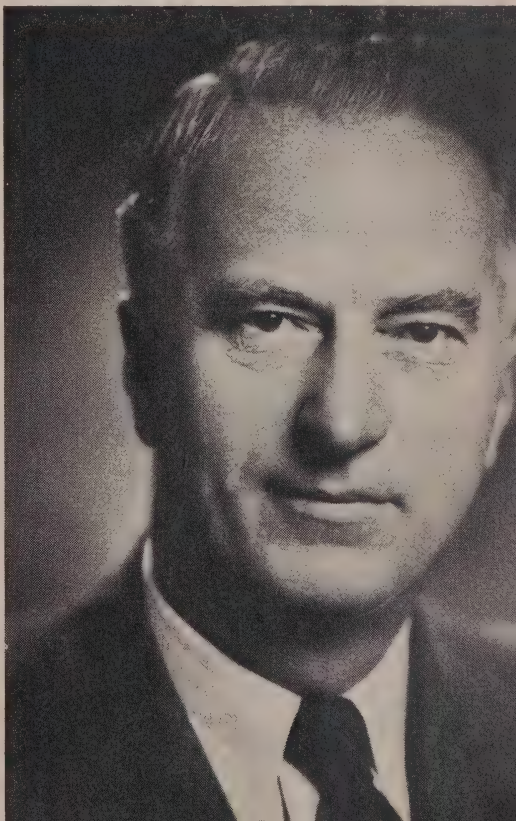
Dr. R. P. Lowery

Dr. Lowery was born on a farm near Tottenham, Ontario. His home life was centred about his church and this early training is reflected in such activities as Church School Superintendent, a leader and teacher in Young People's Societies, and as a sports enthusiast in coaching and managing hockey, baseball and basketball teams. His secondary and professional education were obtained in Toronto and he has practised continuously in its West End.

Recognizing the need for unanimity of thought and action within the profession he became active with its organizations first in this local environment and thence broadening to the provincial and national pictures. Activities have shown leadership in the Dental Public Health Committee of the Ontario Dental Association; the Committee on Publications of the Canadian Dental Association; and finally as President of both the O.D.A. and the C.D.A. A few years ago he was made a Fellow of the American College of Dentists.

Father of two boys, one in the ministry and the other in dentistry, his home life is shared with the family in such activities as gardening and a cottage in the summertime, and photography in the winter.

H. E. Leyland



HISTORY OF DENTISTRY IN NEWFOUNDLAND

by Dr. E. P. KAVANAGH, St. John's, Nfld.

Newfoundland, the corner stone of the British Empire, was discovered by John Cabot in 1497. It was a fishing Utopia held for hundreds of years for vested interests in England and was governed sternly by fishing admirals under Star Chamber laws. Colonists were forbidden to settle and until the beginning of the nineteenth century it was unlawful to build a chimney in a house. The fisherfolk lived along the coast and the type of dental services rendered to them can better be imagined than described.

In the year 1870 an American dentist, a Dr. Brunett, came to St. John's. Within the next twenty years three others settled here, Drs. Burns, Hallett and Bullard. In the late 1880's a dental mechanic from Prince Edward Island, Lehr by name, set up practice. In 1893 the first Dental Act was passed and Lehr was granted permission to practise. This Act set up a Dental Board which consisted of three dentists and four medical men or others appointed by the Government. The dental members are no longer with us but two of the medical men on this first Board are still alive, Drs. Rendell and Fraser.

The Board was inactive from its appointment until 1900 when Dr. W. S. Goodwin came here from Baie Verte, N.B. Dr. Goodwin presented himself to the Colonial Secretary, had his credentials examined and was given a license to practise.

Things went along in a leisurely fashion until 1916 when the Dental Act was amended after which date the late Dr. T. P. Smith became Registrar, to be followed by the late Dr. W. T. Reay. In 1933 it was realized that drastic changes should be made in the Act and the dental fraternity was able to have new legislation passed in 1934. This Act is still in force.

In 1946 a letter was received from Dr. Stan Bagnall and as a result a concerted effort was made to organize and to mould the group into an effective unit. Though small in numbers this unit has developed into an intensely interested society which has established liaison with the Government and the people in the province.

Following Confederation in 1949 we were visited by Drs. Fisk and Gullett, President and Secretary of the C.D.A. As a result of this meeting, at the next annual meeting, held in Toronto in 1950, Newfoundland became a corporate member of the national dental organization.

Problems still beset the dental profession in Newfoundland but through unity of effort and a sincerity of purpose we shall not fail to keep faith with you, older members than we in the field of Canadian dentistry.

HISTORY OF DENTISTRY IN PRINCE EDWARD ISLAND

by Dr. J. P. MILLAR, Charlottetown, P.E.I.

The early days of dentistry in Prince Edward Island were similar to those of most places. It is possible to obtain a connected story of these itinerant dentists from the newspaper files of the day. These men, almost without exception, had several traits common to all; they seldom stayed long in one place, their advertisements were masterpieces of extravagant claims, and most identified themselves as "Dr."

The first to announce his arrival in Charlottetown was a Mr. Plimpton in July 1850, who claimed to have been in St. John's, Newfoundland, for ten years previous to this. He was followed by several others over a period of ten years. Then, in 1863, C. L. Strickland arrived from the U.S.A. This was during the civil war period and the peace and quiet of the Island must have appealed to him as he died in Charlottetown some fifty years later. During his years of practise on the Island many local men were apprenticed to him, and some of them in turn opened offices of their own.

About the last of the itinerant practitioners "The Original Professor Ashley, of Montreal," used considerable space to announce his arrival in May 1880, and much less to announce his hurried departure not long after as the result of a threat of damage actions by the husband of a Mrs. McDonald who had severe haemorrhage following the extraction of a lower molar.

J. S. Bagnall,* the first man from Prince Edward Island to practise in Prince Edward Island with a dental degree, opened an office in Summerside in September 1875. He remained there two years and in association with T. C. Robins, opened an office in Charlottetown where he practised until the spring of 1928.

This brings the record to 1891 when the first legislation was passed, which entitled a man to register on completion of two years' study.

*Father of Dr. J. S. Bagnall presently Dean of the Faculty of Dentistry, Dalhousie University

HISTORY OF DENTISTRY IN NOVA SCOTIA

by-Dr. G. M. DEWIS, Halifax, N.S.

The Nova Scotia Dental Association became an incorporated body by an Act of the Nova Scotia Legislature in 1891. A Code of Ethics was adopted two years later. It is interesting to note that a paper on the Preservation of Deciduous Teeth was presented by one of the members at the meeting held in 1892. As early as 1900 the Maritime Dental Association was organized in Saint John, N.B. This body met on a few occasions and was finally disbanded. In recent years a Maritime Convention has been held in each of the Maritime Provinces (N.S., N.B. and P.E.I.) with the 1952 convention to be held in Fredericton, N.B.

The Nova Scotia Dental Association has always been active in Dental Public Health and we find that back in 1906 a paper presented by Dr. G. K. Thomson on "The Dental Education of the Public and School Children" was presented to the Association. The suggestions were that a revision of the school books respecting the care and preservation of the teeth, the appointment of dentists to make periodical examinations of children's teeth and the distribution of pamphlets instructing parents and children in regard to prophylaxis of the mouth and teeth should be undertaken. As a result of this an amendment was made in the Education Act of the province providing for the periodical examination of school children's teeth and the appointment of dentists to carry this out.

The Association from its inception was vitally interested in dental education. In 1907 arrangements were completed for the establishment of a Maritime Dental College. The Provincial Government of Nova Scotia passed an Act during this period authorizing the establishment of this college in the city of Halifax. Through the cooperation of the Halifax Medical College and Dalhousie University the Maritime Dental College carried on until it was taken over as the Faculty of Dentistry at Dalhousie in 1912. Previous to being taken over by the University, the funds for the operation of the College were provided by the Association.

In 1918 a research laboratory in the Dental Department of Dalhousie University was established. In the same year, through the efforts of the Committee on dental education, arrangements were finalized whereby lectures on Oral Hygiene were given to the students attending the Normal School in Truro. Shortly after this, we observe lectures and demonstrations were given to Public Health nurses in order to give them a wider knowledge of prophylactic treatment for children of pre-school age. Indeed, so much interest was being manifest in the care of children's teeth throughout the Province that the Association passed a resolution which was presented to the Provincial Government urging that a Provincial Dental Health Officer be appointed. However, this did not become a reality until 1949 when a Director of Dental Services was appointed. As early as the '20's the Red Cross Society in conjunction with the Association sponsored travelling dental clinics to areas where dental services were not readily available. At present they serve the country districts during the season when it is possible to operate them and then the staff are appointed to hospitals and sanatoria during the winter months.

The Nova Scotia Dental Association has not been without its problems regarding applicants for registration in the Province. At its incorporation in 1891, definite educational requirements were laid down before a candidate could be registered. On reviewing the history of the Association it is very apparent that many of the men did not possess these qualifications and frequently they resorted to political influence and were successful in obtaining a special act of the legislature permitting them to have their names placed on the Dental Registrar. Since 1929, the Association has not been troubled with tactics such as these.

The Nova Scotia Dental Association has been a continuous member of the Dominion Dental Council (now Dental Council of Canada) since its inception.

The greater number of new men registering each year are graduates of Dalhousie University although in the later years we have had several French Acadians who have taken their training at the University of Montreal applying for registration.

Men from Nova Scotia who have been Presidents of the Canadian Dental Association are: Drs. Frank Woodbury, George Kerr Thomson, A. W. Faulkner, W. W. Woodbury, and V. D. Crowe: Secretary of the Association (Canadian), Dr. J. Stanley Bagnall. Presidents of the D.D.C.: Drs. Frank Woodbury, George Kerr Thomson, and W. C. Oxner.

Labour to keep alive in your breast that little spark of celestial fire called conscience.—George Washington.

HISTORY OF DENTISTRY IN NEW BRUNSWICK

by Dr. HOWARD H. MacDONALD, Saint John, N.B.

In the Province of New Brunswick, as elsewhere, the early history of dentistry saw many unqualified practitioners in the field of dental health. In the 1880's, two Saint John dentists, Dr. A. F. McAvenney and Dr. F. A. Godsoe, who incidentally is still living, made an unsuccessful attempt to form a dental society. Considerable interest in the matter had been created by their efforts, however, and in 1889 Dr. C. A. Murray of Moncton succeeded in organizing a meeting of the dentists of the Province. The meeting was held in Saint John and it was decided to form a provincial dental society in the interests of the public as well as of the profession.

A bill regulating the practice of dentistry was drafted and presented to the Legislature for enactment at the next session. The bill was passed and the "New Brunswick Dental Act of 1890", the first law to regulate the practice of dentistry in this Province became an accomplished fact.

The first meeting of the Dental Society was held in Fredericton on August 12, 1890, and the following officers were elected: Dr. A. F. McAvenney, President; and Dr. James Magee also of Saint John, Secretary. The Act provided for a "Council of Dental Surgeons of New Brunswick" as the governing body of the Society. It consisted of seven members and at its first meeting held in Saint John, September 20, Dr. C. A. Murray of Moncton was elected President and Dr. James Magee of Saint John, Registrar.

The regulation of the practice of dentistry by statute has since continued. A new Dental Act was passed in 1929 which provided that the elected officers of the Society, *ipso facto*, became members and officers of the Council, thus giving members of the Society a more direct and a greater measure of control over its affairs. This same Act curbed the unrestrained commercial attitude existing by prohibiting dental advertising. Some unregistered practitioners at this time, who had a certain number of years of experience as operators, mostly in the offices of advertising dentists, were recorded as "Assistant Dentists" and were to practise under the direct supervision of registered dentists. This proved to be a real "booby-trap" and caused the Dental Society a very great amount of trouble besides setting the progress of dentistry in the Province back for perhaps twenty years. There was so much trouble that the Dental Society introduced a new Dental Act in 1942 and in order to get it passed by the Legislature were forced to register these "Assistant Dentists" outright. The new Act provided that henceforth only graduates of recognized dental colleges could become registered but we and the public in particular are still suffering from the effects of interpretations of sections of previous Acts which were never intended by the Dental Society but which smart lawyers were able to make stand in court.

HISTORY OF DENTISTRY IN QUEBEC

by Dr. D. P. MOWRY, Montreal, Quebec

In the minutes of the College of Dental Surgeons of the Province of Quebec it is recorded that the origin of this body was the organization in February 1869 of the Dental Association of the Province of Quebec, Board of Trustees and Examiners. This Board examined candidates and issued the title of Licentiate of Dental Surgery. At that time they examined or assessed dental candidates from Toronto and the schools in the United States. There are recorded some differences of opinion as to admitting men with diplomas from the United States because of the poor reputation of the commercial schools then in vogue.

As a result of the initiative of a few men, the Board of Examiners organized a Dental School with Dr. W. George Beers as Dean. This school taught the technical and some basic subjects while the academic preparation was provided for the French by Laval University and for the English speaking by Bishop's College.

In 1904 the branch of Laval University in Montreal (largely through the efforts of Dr. Dubeau, Dr. Nolin and Dr. Gendron) organized a complete dental course as a Faculty for the French speaking students. In 1920 the Montreal branch of Laval University became a Corporation known as The University of Montreal and this included the Faculty of Dentistry.

In 1904 the English speaking students were received as a department of the Faculty of Medicine of McGill University. On the 26th of January, 1920, the Department of

Dentistry was constituted a separate Faculty of McGill University with Dr. A. W. Thornton as Dean.

The Dental Association of the Province of Quebec, Board of Trustees and Examiners became the present College of Dental Surgeons of the Province of Quebec in the year 1904. This C.D.S.P.Q. continues as the assessing and licensing body of the Province of Quebec.

At present, Quebec has two dental schools, organized as distinct Dental Faculties in the University of Montreal and McGill University. Both confer the degree of Doctor of Dental Surgery.

Dental teaching in the Province of Quebec has developed as a co-operative effort of both the English and French speaking groups and excellent harmony continues to this day.

The dental profession of the Province of Quebec is in active sympathy both materially and spiritually with the policies and ideals of the Canadian Dental Association.

HISTORY OF DENTISTRY IN ONTARIO

by Dr. DON W. GULLETT, Toronto, Ontario

According to the scanty records of the time, there were not more than six dentists in Ontario in the year 1846. By immigration and more largely by a brief indenture-ship of from 3 to 12 months this number increased to 175 by the year 1866. Dr. Barnabus W. Day of Kingston called a meeting of Ontario dentists which was held in Toronto during January 1867 for the purpose of forming an organization. A second meeting, which was more largely attended, was held in Cobourg in July of the same year and a third meeting was held in Toronto in January 1868. This organization, after changing its name at least once became the Ontario Dental Association which has continued through the years, holding an annual convention every year save on two or three occasions.

One of the first objectives of the organization was to secure statutory incorporation for the profession. A draft bill was prepared and after much discussion, approved by the Association. Petition was made to the legislature which was favourable to the legislation and the bill was enacted on March 4, 1868, at the first session of the first Ontario Legislature. The Ontario Dental Law was drafted without precedent and while amended on many occasions claim is made that this statute is the oldest continuous dental act in the world. By this legislation the Royal College of Dental Surgeons of Ontario was incorporated of which every dentist who desires to practise in Ontario, must be a member.

As stated in the Act the duties of the R.C.D.S. are carried out by a Board elected biennially by the members of the College.

One of the first objectives of this Board was the establishment of a dental school, which was initiated in 1869 and fully accomplished in 1875 and known eventually as the School of Dentistry of the Royal College of Dental Surgeons. In all, the School has had five locations in the City of Toronto; the present building being built in 1910. The School was affiliated with the University of Toronto in 1888 and at that date the Senate of the University established the degree of Doctor of Dental Surgery. In 1925 the Board made an agreement by which the University took over the School and established it as a Faculty of Dentistry of the University. Under the arrangement the R.C.D.S. resigned to the University its teaching functions and retained its other powers under the Act.

The family name of Willmott has been synonymous with the development of dentistry. Dr. J. B. Willmott served as Dean of the School from the beginning until the time of his death in 1915. He also occupied the position of Secretary of the Board for 45 years being succeeded by his son, Dr. W. E. Willmott, as Secretary of the Board, in 1915. Dr. Willmott continued in that office until 1940.

The main functions of the Board consist in regulating the members in the practice of dentistry in the Province of Ontario in the best interests of the public. The Dentistry Act is worded in general terms giving power to the Board to make by-laws and regulations for this purpose.

Since establishment in 1868 the Board has held 194 meetings. Regular meetings are held twice in each year with occasional special meetings.

"Health—like freedom and peace—continues only as we exert ourselves wisely to maintain it."

HISTORY OF DENTISTRY IN MANITOBA

by Dr. J. GORDON ELSEY, Winnipeg, Manitoba

In 1877 Dr. J. L. Benson, a graduate from Ontario, arrived in Winnipeg to practise dentistry. Associated with him as a student was Dr. A. R. Harvie. In 1883 the Dental Act was passed—the Board elected for a term of three years—annual meeting and examinations to be held by the Board. Dr. George F. Bush was a charter member of the Association. Indentureship required Matriculation or Second Class Teacher's Certificate with Latin, evidence of good character and a fee of \$10.00. The term was two and one-half years. Registration for Licentiates was \$40.00, and annual dues \$2.00.

In 1888 practitioners were given sixty days to comply with the Act and in 1889 all who had practised in the Province for six months previous to the Act were licensed. Registration fee was raised to \$100.00. In 1891 students from the Manitoba Medical College with certificate covering medical subjects were accepted in lieu of final examinations in said subjects. In 1894 two members of the Board were to be chosen from rural points. In 1897 the Official Seal of the Manitoba Dental Association was registered. In 1902 a representative to the Canadian Dental Association in Montreal was appointed. In 1905 Dr. S. W. McInnis was appointed representative to the Dominion Dental Council for a term of four years. In 1906 Dr. Croll was appointed examiner for the D.D.C. In 1912 the Winnipeg Dental Society was organized.

The 1914 meeting of the Canadian Dental Association was held in Winnipeg. In 1916 the Act was amended establishing qualifications for examinations. In 1917 many temporary permits were granted. Registration fees for forty-nine members in Service were paid by the Association for the duration of Service. In 1918 the Offices of Registrar and Secretary were combined. In 1921 Studentships were established on a two-four basis. In 1922 three hundred dollars were donated by the Association to assist the Red Cross in establishing clinics.

In 1923 the necessity for dental hygienists in schools and hospitals was expressed but did not receive majority support until 1944. Even yet legislation has not been obtainable to control their practice through no fault of the dental profession.

In 1927 a fee of 50c per member was included in the Budget for the Canadian Dental Association fees. In 1929 a Mouth Health Campaign was organized and \$1500.00 granted by the Association for educational purposes. In 1930 requirements for practice in Manitoba were set at two years Pre-Med. and four years in an approved college. In 1931 the Board of Health requested a member of the Dental Association to sit in at their meetings. Dr. Harry Thomson's Survey had covered 14,000 Manitoba school children outside of Winnipeg. A Central City School Clinic was established. A full-time Secretary for the C.D.A. was recommended. Dr. Garvin urged assessment of \$4.00 per capita for the C.D.A. The Travelling Clinic was turned over to the Canadian Foundation for Preventive Dentistry and in 1936 through this Foundation 7,282 operations were performed.

The C.D.A. Benevolent Fund was approved and the Journal accepted as the official organ. In 1939 educational pictures were shown in fifteen local theatres.

In 1940 Dr. J. F. Morrison was elected to fill the office of Registrar-Secretary-Treasurer and in 1941 the C.D.A. fees were raised to \$4.00 per capita. In 1943 the dues of the C.D.A. were raised to \$10.00 at the discretion of the Board.

In 1944 the registration dropped to 252 members, 62 of whom were in the Canadian Army Dental Corps. Dr. George F. Bush was congratulated on his sixty-four years in practice and attendance at his forty-ninth consecutive annual meeting. There were 25% of the registered dentists over sixty years of age. Dr. H. A. Croll attained his 50th year in dentistry and was made an Honorary Member. Eleven Past-Presidents attended the Annual Dinner.

Three hundred dollars was set aside for a Provincial Benevolent Fund. Registration dues were raised to \$25.00. In 1949 a Prescription Bill for laboratory services was prepared and approved, but delay was advised by the Minister of Health. Dr. Merkeley urged the necessity of a Headquarters for the C.D.A.

In 1950 Manitoba Annual dues were raised to \$40, \$25.00 of this amount to be for the C.D.A. for 1950; and in 1951 \$15.00 for C.D.A. expenses, and any additional amount to be allotted to the purchasing of a Central Headquarters Building.

If I had twenty tongues I'd preach politeness with them all—for a long experience has taught me that its results are tangible and inevitable. It is the Aladdin's lamp of success.—George G. Williams.

HISTORY OF DENTISTRY IN SASKATCHEWAN

by Dr. L. J. D. FASKEN, Regina, Saskatchewan

The Province of Saskatchewan was formed from Assiniboia and Athabasca in the North West Territories, in September, 1905, due to the foresight of one or two dentists who were practising in the area. And here much of the credit must be given to the late Dr. W. D. Cowan, who had prepared a Dental Act to present to the first meeting of the first Legislature. This Act created the College of Dental Surgeons of Saskatchewan, and gave authority to a Council of five members, duly elected, to carry out the provisions of the Act, which came into effect, May 1, 1906. In January 1906 a Provisional Council was elected until such time as the new Act came into force, creating the College of Dental Surgeons of Saskatchewan. In July 1907 the first Council of the College was elected. The following were the members: Dr. W. D. Cowan, Dr. P. F. Size, Dr. J. M. Turnbull, Dr. L. D. Keown, and Dr. L. J. D. Fasken.

Every person who had been registered in the N.W.T. had the right and privilege to register in Saskatchewan, and become a member of the college. Eighty-seven men registered and paid the fee, \$2.00 registration and \$1.50 for a diploma. Only 34 of the above number were resident in the Province and practised here; many of the others had never practised in the N.W.T. and many others registered and practised in the sister Province of Alberta. The population of the Province was small at this time but as it grew and new towns sprang up, several men registered and moved to the new places to commence the practice of dentistry.

Matters concerning the college went along smoothly until 1916 when a member of the College decided that he would bring in unregistered men to work for him and even sent them out to branch offices to work. The Council immediately prosecuted. This gentleman had enough influence with a member of the Legislature, to have him present an amendment to the Dental Act, in the last days of the session, which was passed, and in effect wiped out the powers of Council to govern the members. This amendment was passed without any notification to the Council, and no opportunity was given the profession to protest.

In 1917 the Council asked the Government to repeal the amendment and make other changes to the Act. There was opposition from three or four members of the college to these changes, and criticism was made that the college was a closed corporation, and as the Council conducted the examinations, only a very few were allowed to pass the examination and register. In order to overcome this criticism, the Council asked that the University of Saskatchewan be asked to conduct all examinations for the College. The university gladly consented and the arrangement has been very successful. The Dental Act was again amended in 1928, and with the exception of one or two minor changes in 1945-46, is the present Dental Act.

During the Second Great War over 30% of the members of the college served King and Country, mostly in the Canadian Dental Corps. They served in every theatre of the war. Dr. R. W. Cooper, Moose Jaw, was killed in action, in Italy. Dr. C. W. Steele was killed in a plane crash at Vancouver while serving as Officer Command-in the Corps in that area. Dr. J. A. C. Brown also died while in the Services. With the percentage of our men in the services, a heavy burden was placed on the men who remained in practice, and they are to be commended for the manner in which they maintained dental services in the Province.

Saskatchewan was the first Province in the Dominion to pass legislation governing the practice of hygienists, and was the first to have a registered hygienist.

Saskatchewan has always had a Representative on the Dominion Dental Council, and except for a very short period our Representative has been Secretary-Treasurer of that organization.

Special mention should be made of the men, who in the early development of the Province, gave so willingly of their ability and time without any hope of reward, and did a wonderful job in maintaining a high dental standard. Special mention should be made of the late Dr. W. D. Cowan; the late Dr. P. W. Winthrop; Dr. F. C. Harwood, formerly of Moose Jaw, now in Victoria; Dr. W. W. Irwin, formerly of Moose Jaw, now retired, at Mirror Lake, B.C., and Dr. L. J. D. Fasken, Regina, Sask.

*Make all good men your well-wishers, and then, in the year's steady shifting
some of them turn to friends. Friends are the sunshine of life—John Hay.*

HISTORY OF DENTISTRY IN ALBERTA

by Dr. R. A. ROONEY, Edmonton, Alberta

Though dentistry in Alberta can date back only to the formation of the province in 1905, dentists practised in the area now included within the provincial boundaries for over twenty years before that.

Two dentists, Drs. F. D. Shaw and William Wilson began practice in 1883. Dr. Shaw was graduated from a New York dental school in 1878 and joined the North West Mounted Police in 1879. Dr. Wilson apparently had had no formal training but he also served with the North West Mounted Police as a Sergeant before retiring to private practice.

A North West Territory Dental Association was organized on July 1, 1889 with 6 dentists in the area which is now Alberta.

Dr. P. F. Size, formerly of Toronto, was the second resident dentist in Calgary and following the first organization meeting of the North West Territories Association, he became the first Registrar and remained in that office until the new provinces were established. Then appeared Drs. Holbrook, 1889; Binkley, 1890 and R. B. O'Sullivan in 1892. Dr. O'Sullivan was the chairman of the first meeting to set up regulations governing the practice of dentistry in Alberta on October 3, 1905, and was the first President of the Alberta Dental Association elected at an organization meeting in Banff in July 1906; the other members of the Board being Dr. A. E. Auger, Vice-President; Dr. O. F. Strong, Secretary-Treasurer-Registrar; Dr. E. M. Doyle, Dr. T. C. Bruce, Directors. On the establishment of the Alberta Dental Association and the College of Dental Surgeons of Saskatchewan, all men registered with the old territorial Association automatically became eligible for registration with both the new provincial organizations and most of them did. In 1906 there were 51 men in practice; 15 in Calgary, 18 in Edmonton, the balance at various other points such as Lethbridge, Medicine Hat, Lacombe, Macleod, High River, etc.

It is interesting to note that of these men Drs. E. M. Doyle, Calgary; A. B. Mason, Edmonton; H. F. Whittaker, Edmonton; J. S. Stewart, Lethbridge; A. E. Auger, Stettler, and H. E. Beddingfield, High River, are still in practice.

During the early years resident dentists did considerable travelling from place to place. Dr. Wilson advertised in the Edmonton Bulletin for a number of years, making the trip by stage which took 5 days following practically the old Indian trading trails.

Dr. J. S. Stewart of Lethbridge has been in constant practice there since 1902, though interrupted during two wars. He served with the Strathcona Horse during the South African War and during the First World War he commanded the 3rd Division Artillery and for a time was Acting Commander of the 3rd Canadian Division. In recognition of his services he received the C.M.G. and D.S.O. He also served in the Alberta Legislature and as a member of the House of Commons for Lethbridge.

In 1912 both the Alberta Dental Association and the College of Physicians and Surgeons of the Province made agreements whereby the university established boards of examiners from which the university chose a Board.

In 1918 a course in dentistry under the Faculty of Medicine was begun, giving the first two years of a four-year course, on arts and the basic sciences, the students continuing their studies for graduation in eastern or United States schools. In 1924 a Department of Dentistry was set up in the Faculty of Medicine with Dr. H. E. Bulyea as Director. He continued until his retirement in 1942 at which time Dr. W. Scott Hamilton became Director and, on the establishment of the Faculty of Dentistry, in 1944, became Dean, the office which he holds at the present time.

In the early days the great problem was the difficulty in getting supplies, all these having to be ordered from Toronto or Winnipeg, often taking a month to get an order back. Later a plan was arranged of sending a consignment of supplies to Calgary from which the dentists in the various parts of the province could make their selections. In 1907 the first supply depot was opened in Calgary by the Temple-Pattison Company and in 1912 another branch was opened in Edmonton.

There is no provincial convention body in the province, the Association acting in that capacity as well as being the legal organization.

The Association has 328 members for the current year.

A doctor should be careful never to betray the secrets of his patients, either men or women, or belittle some to others . . . for if a man knows that other men's secrets are well kept, he will be the readier to trust you with his own.—Chaucer, 1376.

HISTORY OF DENTISTRY IN BRITISH COLUMBIA

by Dr. L. G. ROBINSON, New Westminster, B.C.

Legislation to regulate the practice of dentistry in British Columbia first appeared with the passing of the Act of 1886, which created a Board of Dental Examiners. This Act vested the Board with power to make rules, regulations and by-laws, and provided means of prosecution for infringements of the Act. Doctor T. J. Jones, of Victoria, President; Doctor C. E. C. Brown, of New Westminster, Secretary, and Doctor P. R. Smith, of Nanaimo, were the members of the first Board.

Dentists practising in the Province for more than three months prior to the passing of the Act were granted certificates permitting them to continue in practice without further examination.

The Act required of those seeking admission to practise here, that they possess a diploma from a "reputable dental college authorized by the laws of Great Britain or its dependencies, or of some foreign country." Alternately, residents of this Province, of British descent, might become apprenticed to registered practitioners for three years, whereupon, after passing examinations set by the Board, they would be admitted to practice.

Records show that the Board was active in administering the principles of the Act, from time to time bringing into effect reconstructions or amendments of the Act as the indications for such changes became evident. Records of prosecutions against infringements of the Act appear frequently in the minutes.

The Act of 1908, which created the present College of Dental Surgeons of British Columbia, also brought about many important changes in jurisdiction, and in the requirements for admission to practise. The college has been consistently active since then, constantly endeavouring to improve relationship between the profession and the public, and to provide to the public protection against undesirable practices.

Outstanding among the many amendments and revisions of the Act since 1908 have been the prevention of newspaper advertising of fees and special abilities; the elimination of public demonstrations of dentistry; the prevention of the practice of dentistry by corporations, and the avoidance of "trade names"; the suppression of "schools," set up by technicians to cover the practice of dentistry by unlicensed men, and, most recently, provision for the licensing of dental hygienists.

For nearly sixty years, the Provincial voluntary body, the British Columbia Dental Association, has been operating, largely in fostering annual conventions, and, in other matters, often finding its activities overlapping with those of the college. In 1949, a move was instituted to remove this confusion. The result is that the respective organizations now function with well-defined objectives, closer co-operation and greatly improved efficiency.

Study groups of local voluntary organizations have set and maintained a high standard. A considerable number of British Columbia practitioners, drawn from these groups, have been appointed to the teaching staff of nearby American university dental schools.

About ten years ago, the Department of Health and Welfare of the Province of British Columbia, recognizing the urgent need for a program of child dental care, undertook the organization of the present Division of Preventive Dentistry. Since its inception, officials of the Division, and of the Parent Department of Health and Welfare, have co-operated closely and effectively with the Dental Public Health and Public Relations committees of the British Columbia Dental Association. The result has been the outstanding program described in an article recently published in this Journal, and the continued harmonious work of these various organizations in the development of dental public health generally throughout this Province.

Accumulating experience indicates that the survival of democratic capitalism as a political and economic system will depend in the main upon the genius of man in combining the three ingredients vital to the success of the system. These ingredients are individual incentive, mutual responsibility, and an effective framework of protection against the corroding fear of insecurity.—J. Douglas Brown, Faculty Dean, Princeton Univ.

An infinite capacity for taking pains—that is genius—J. C. Roberts, *Personal Achievement*.

1951-1952 DENTAL STUDENTS' REGISTER
(as reported by Deans of the schools)

TABLE 1

Total Enrolment of Undergraduate Students in the Dental Schools of Canada as of January 2nd, 1952

University	Freshmen	Sophomores	Juniors	Seniors	Men	Women	Total
Dalhousie University.....	12	12	13	12	47	2	49
McGill University.....	37	38	34	36	145		145
University of Montreal.....	16	23	53	48	140		140
University of Toronto.....	79	65	71	85	295	5	300
University of Alberta.....	29	30	34	28	118	3	131
Totals.....	173	168	205	209	745	10	755

TABLE 2

Maximum Number of Undergraduate Students that will be Accepted in a class in Your School

Dalhousie University.....	12
McGill University.....	35
University of Montreal.....	60
University of Toronto.....	75
University of Alberta.....	30
Total.....	212

TABLE 3

Recapitulation of Undergraduate Enrolment in the Dental Schools of Canada 1940-1951 Inclusive

School	1940-1941	1941-1942	1942-1943	1943-1944	1944-1945	1945-1946	1946-1947	1947-1948	1948-1949	1949-1950	1950-1951	1951-1952
Dalhousie University	31	25	25	22	28	27	38	37	41	48	48	49
McGill University	58	61	67	67	51	73	111	127	146	147	145	145
University of Montreal	104	118	139	154	162	184	188	208	224	225	196	140
University of Toronto	210	232	270	255	264	180	340	435	478	478	380	300
University of Alberta	51	49	53	24	34	54	108	115	123	136	114	121
Totals.....	454	485	554	522	539	518	785	922	1012	1034	883	755

TABLE 4

Total Number of Graduates During the Years 1940-1951 Inclusive

School	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Dalhousie University	12	7	8	11	6	8	0	10	9	6	11	12
McGill University	13	18	9	26	12	13	5	18	15	34	36	37
University of Montreal	23	14	31	18	37	30	41	36	38	45	42	69
University of Toronto	56	45	40	103	61	58	56	75	24	75	168	152
University of Alberta	13	13	32	8	24	7	0	10	13	20	49	25
Totals.....	117	97	120	166	140	116	102	149	99	180	306	295

For the Year 1951

	Male	Female
Dalhousie University.....	12	0
McGill University.....	36	1
University of Montreal.....	69	0
University of Toronto.....	152	0
University of Alberta.....	24	1
	293	2

TABLE 5

Distribution of Undergraduate Students by Provinces and Foreign Countries in the Dental Schools of Canada as of January 2nd, 1952

School	Newfoundland	P.E.I.	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	United States	Br. West Indies	Bermuda	New Zealand	Europe	Totals
Dalhousie University.....	5	5	28	10	0	0	0	0	0	0	1	0	0	0	0	49
McGill University.....	4	2	2	5	64	12	4	15	2	11	13	9	1	0	1	145
University of Montreal.....	0	0	1	9	116	1	1	1	0	0	9	0	0	0	2	140
University of Toronto.....	0	2	1	1	0	263	10	11	0	10	0	0	0	1	1	300
University of Alberta.....	0	0	0	0	0	0	4	37	58	18	0	0	0	0	4	121
Totals.....	9	9	32	25	180	276	19	64	60	39	23	9	1	1	8	755

TABLE 6

Additional Students

	Dalhousie University	McGill University	University of Montreal	University of Toronto	University of Alberta	Totals
*Graduate during 1951.....	0	0	8	22	3	33
**Post-graduate during 1951	0	0	12	131	0	243
Dental Nurses 1951-52.....	0	0	10	23	0	23
Student Dental Hygienists 1951-52.....	0	0	0	6	0	6
Is course for Dental Hygienists being planned?..	Under Serious Consideration	Yes	Yes as soon as possible	Course In Operation	No	

*The term "graduate" means proceeding to a degree.

**The term "post-graduate" means taking a course other than proceeding to a degree.

TABLE 7

Computed Data Respecting Relationship by Percentage and Ratio to Population per Province of Origin of Canadian Students Attending Dental Schools

Students From	% of Students*	Ratio of Students to Population**
Newfoundland.....	1.13	1/39,752
P.E.I.....	1.13	1/10,865
Nova Scotia.....	4.02	1/19,946
New Brunswick.....	3.14	1/20,487
Quebec.....	22.59	1/22,279
Ontario.....	34.63	1/16,530
Manitoba.....	2.38	1/40,622
Saskatchewan.....	8.03	1/12,956
Alberta.....	7.53	1/15,609
British Columbia*.....	10.16	1/14,235

*For calculation purposes in this table the Canadian students in attendance at schools in United States are included in the overall figures. All these Students are attending U.S. Schools near the Province of British Columbia and as a consequence are included in the figures for that province both as to percentage and ratio.

**Population figures used are those supplied by the Bureau of Statistics Ottawa for the year 1951.

Definition: "An Executive is a fellow who goes and finds work — and then finds somebody who is willing to pay for having it done. Then he hires somebody to do it."

"Every great and commanding movement in the annals of the world is the triumph of enthusiasm. Nothing great was ever achieved without it."—Emerson.

STATISTICAL DATA RE DENTAL PERSONNEL IN CANADA

The Annual Report on Canadian Dental Personnel is set forth in the following tables.

For the first time is reported over 5,000 practising dentists in Canada. An increase of 886 is shown over the number reported for the year 1938. Between the years 1938 and 1952 the increase in population has been comparably greater than the increase in the number of dentists, which has resulted in a worsening of overall ratio. During these comparative years three provinces, namely, Québec, Saskatchewan, and Alberta have slightly improved ratios but the other provinces have lost ground.

For the years 1951 and 1952 some improvement of ratio has been shown even with the increase in population which has occurred. This improved position has been due to large graduation classes for these two years. Graduating classes will be normal for 1953 so that much betterment of ratio cannot be anticipated.

The loss of personnel by death and retirement remains fairly constant, being 2.3 per cent for 1951.

The number practising specialties has gradually increased each year over the past ten year period.

TABLE 1

(As reported by Provincial Registrars) as of January 1952

Province	No. of Dentists Reported			During year of 1951			Total Increase or Decrease	Ratio Total No. of Dentists per Capita
	Male	Female	Totals	Deaths	Retirements	Additions	1938*	Population
Nfld.	20	1	21	0	0	0	+1	1/17038
P.E.I.	29	0	29	0	0	1	-1	1/3372
N.S.	194	2	196	0	0	7	+36	1/3257
N.B.	110	0	110	5	1	13	0	1/4656
Québec.	1204	4	1208	10	9	80	+334	1/3320
Ontario.	2133	21	2154	40	15	152	+222	1/2118
Manitoba.	260	1	261	3	1	10	+10	1/2957
Sask.	216	2	218	1	2	15	+8	1/3804
Alberta.	326	2	328	1	4	26	+92	1/2855
B.C.	542	4	546	3	11	48	+181	1/2112
Totals.	5034	37	5071	63	43	352	+886	1/2740

Population figures used in this table are those issued by the Federal Bureau of Statistics as of June, 1951.

*Figures for increase or decrease as compared to the pre-war year 1938 are given for comparative purposes.

TABLE II

Movement of Canadian Dentists During 1951

To:	Nfld.	P.E.I.	N.S.	N.B.	Qué.	Ont.	Man.	Sask.	Alta.	B.C.	U.S.A.	Hong Kong	S. Africa	N.Z.
From:														
Nfld.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P.E.I.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N.S.	0	0	0	0	0	1	0	0	1	0	0	0	0	0
N.B.	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Que.	0	0	0	0	0	0	0	0	0	0	4	0	0	0
Ont.	0	0	0	0	0	0	1	1	1	2	4	1	1	0
Man.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sask.	0	0	0	0	0	1	0	0	2	0	0	0	0	0
Alta.	0	0	0	0	0	2	0	1	0	1	3	0	0	0
B.C.	0	0	0	0	0	0	1	0	2	0	1	0	0	0

It's amazing what ordinary people can do if they set out without preconceived notions.—Charles F. Kettering.

God gave us memories so that we can have roses in December.—Sir James Barrie.

TABLE III

Number Practising Specialties, By Province
(Only those practising the specialty designated full-time enumerated)

	Nfld.	P.E.I.	N.S.	N.B.	Qué.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
Dental Oral Surgeons..... (Exodontists).....	0	0	1	0	3	24	3	0	2	3	36
Orthodontists....	0	0	1	0	14	30	3	1	2	9	60
Periodontists.....	0	0	0	0	2	14	1	0	1	2	20
Pedodontists.....	0	0	0	0	2	2	2	0	0	4	10
TOTALS.....	0	0	2	0	21	70	9	1	5	18	126

TABLE IV

Number Employed In Health Services By Province as of January 1952

	Nfld.	P.E.I.	N.S.	N.B.	Qué.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
Dental Schools: (Teaching Staff)											
Full-time	0	0	1	0	10	12	0	0	2	0	25
Half-time	0	0	0	0	14	5	0	0	11	0	30
Hospital Service											
Full-time	0	0	0	2	0	23	0	2	5	0	32
Half-time	0	0	0	1	0	4	0	0	0	1	6
School Dental Service:											
Full-time	0	0	1	0	0	16	1	0	3	16	37
Half-time	0		4	3	11	45	2	1	1	1	68
Public Health Service:											
Full-time	0	2	4	1	11	11	1	0	0	7	37
Half-time	0	0	0	0	8	0	0	0	0	0	8

TABLE V

Total Number Employed By Federal Departments as of January 1952

Department of Veterans Affairs.....	40
Department of National Defence.....	128
Department of National Health and Welfare.....	10
Total.....	178

DIRECTORY

Canadian Dental Association Headquarters—234 St. George Street, Toronto, Ontario.

Matters relating to the publication of manuscripts or news items for the English Section of the Journal should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

Matters relating to the French Section of the Journal should be addressed to the French Editor, Dr. G. de Montigny, 400 est Blvd. St. Joseph, Montreal, P.Q.

Matters relating to the business of the Journal should be addressed to the Business Manager, Dr. Don W. Gullett, 234 St. George Street, Toronto, Ontario.

Subscriptions Price of Journal in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

All additions and changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Something Happening in American Society

Professor John Jewkes, Professor of Economic Organization at Oxford University and who served in Mr. Churchill's wartime government, has this to say in the December issue of *Fortune* magazine, and this applies to Canada as well.

"I pay frequent visits to the U.S. and on my recent trips, along with my admiration for the energy and the buoyancy, I always find an uncomfortable feeling that something is happening in American society which is familiar to me because it happened in Great Britain.

"There seem to be in American colleges these days many teachers who speak of the virtues of a centrally planned economy with the starry-eyed enthusiasm and the almost touching innocence regarding the realities of economic life and organization which were so apparent in British universities between the wars. There are to be found in many American middle-class families talk of the supreme virtue of economic equality and signs of a sense of guilt that they are not as poor as some others—which is reminiscent of the conversations and attitudes of many British middle-class families as they fell under the sway of socialist propaganda in the early part of this century.

"There seems to be a growing contempt for profit making, a growing irritability with the untidiness, the tangled ends, the pains of readjustment which a system of free enterprise makes inevitable as, in the course of progress, it continually bursts out of its skin to take a new form. And I begin to ask myself: is it conceivable that the American people, having provided so strong a proof of the virtues of a free economy, are gradually becoming unaware of, or indifferent to, the secrets of their own greatness?

"Perhaps I am all wrong about this—I profoundly hope so. It would be odd and tragic if socialist ideas, like the movements of men, were destined to travel westward." Published by kind permission of the Editor of *Fortune* magazine and the author, Professor John Jewkes of Oxford University.

What good are glasses or a mirror to a man who doesn't want to see?—Jewish Lore



"And this is a record of him cutting his first tooth."

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Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

JUIN, 1952

No 6



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400 est Boul. S.-Joseph, Montréal

Numéro spécial à l'occasion du Cinquantenaire de l'Association Dentaire Canadienne

Avant-propos

La livraison de juin 1952 du Journal de l'Association Dentaire Canadienne est consacrée totalement à la célébration du cinquantième anniversaire de la fondation de notre Association.

L'esprit, qui anime ces pages repose sur une rétrospective des événements qui ont marqué le développement de notre profession en terre canadienne.

A cette occasion, le Comité de Rédaction de la section française du Journal a invité des membres distingués de notre groupement professionnel de langue française à collaborer à ce numéro spécial.

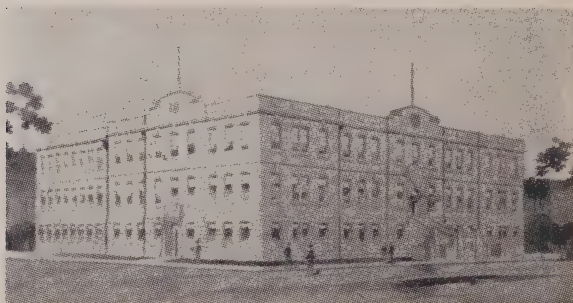
Nous remercions ces collaborateurs—ces témoins et ces artisans, devrions nous dire—du progrès de notre profession bien—aimée.

Nous les remercions d'avoir servi, encore une fois, la cause de la dentisterie du Canada.

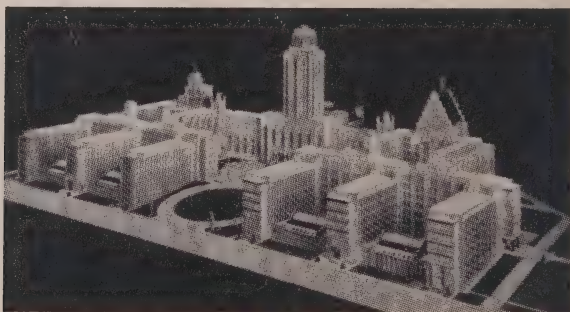
Le Comité de Rédaction



*La vieille école (1908-1913)
angle des rues S.-Hubert et DeMontigny*



*Faculté de Chirurgie Dentaire
(1913-1942) angle des rues S.-Hubert et DeMontigny*



*Université de Montréal, Boul. du Mont-Royal.
La Faculté de Chirurgie Dentaire occupe les deux
premiers étages des trois ailes de gauche, depuis 1942.*

L'Association Dentaire Canadienne et ses cinquante années au service de la profession et du public

En septembre 1902, un groupe de dentistes canadiens, venant de toutes les parties du pays, se réunissaient à Montréal, à l'Université McGill, pour **jeter** les bases d'un groupement dentaire national.

Environ 200 personnes, soit vingt pour cent du nombre total des dentistes de cette époque, s'étaient groupées à cette occasion. Parmi ces pionniers, un seul est vivant encore aujourd'hui, le Dr Eudore Dubeau.

Des élections, tenues au cours de ces délibérations, constituèrent le premier Comité Exécutif de l'Association Dentaire Canadienne: président, F. A. Stevenson, de Montréal; vice-président, J. B. Willmot, de Toronto; secrétaire, Eudore Dubeau, de Montréal.

La première réalisation de cette assemblée fut l'adoption d'un code d'éthique professionnelle à l'usage de tous les praticiens canadiens.

Une foule d'autres problèmes furent soumis à l'assistance, dont les deux principaux étaient:

- 1) la constitution d'un organisme national qui décernerait des diplômes permettant l'exercice de la dentisterie par tout le pays;
- 2) l'organisation d'un corps d'armée de dentistes canadiens.

Ces deux questions ont toujours préoccupé les dirigeants de l'Association. La première n'a pas trouvé encore sa solution définitive; le Conseil Dentaire du Canada, mis sur pied et reconnu par la majorité des provinces, peu après cette première réunion, ne s'est pas avéré la formule idéale répondant aux exigences de toutes les circonstances et de tous les individus. Actuellement, l'Association édifie un projet, qui a reçu l'assentiment de toutes les provinces et la sanction royale. Les dernières formalités restent à être remplies et l'adoption officielle et définitive de ce Bureau National des Examineurs Dentaires par l'Association Dentaire Canadienne devrait se faire d'ici peu de temps.

La seconde question est réglée depuis la seconde guerre mondiale: le Corps Royal Dentaire Canadien a conquis son autonomie.

On peut se rendre compte de la vision dont étaient animés les fondateurs de l'Association, puisque leurs préoccupations, en 1902, ont été celles de leurs successeurs durant cinquante ans, avant qu'elles n'aient été solutionnées.

L'Association a-t-elle atteint les buts que lui avaient fixés ses fondateurs en 1902?

L'incorporation de l'A.D.C., qui fut approuvée par le gouvernement en 1942, définissait ainsi ses raisons d'être:

- 1) développer et améliorer la science et l'art de la dentisterie et ses

branches adjacentes et surveiller l'honneur et les intérêts de la profession dentaire;

2) entreprendre, diriger, stimuler, aider les recherches sérieuses dans le domaine dentaire;

3) maintenir et améliorer le caractère et la formation professionnels des dentistes;

4) favoriser la compréhension des membres de la profession entre eux, en leur procurant des occasions de se rencontrer et de sympathiser;

5) éclairer et diriger l'opinion publique sur les questions d'hygiène buccale, de prophylaxie dentaire, de santé buccale et sur l'excellence des services dentaires;

6) faire connaître les progrès et les découvertes de la dentisterie;

7) se rendre compte et sauvegarder les intérêts communs des dentistes;

8) publier des revues dentaires, des rapports et des volumes;

9) accomplir tous les actes susceptibles de réaliser ou d'aider à la réalisation des buts énumérés ci-haut, le tout en conformité avec la loi.

Les buts que se proposait l'Association ont été pleinement réalisés et le travail se poursuit sans cesse pour doter les dentistes canadiens d'un organisme actif, au courant des problèmes de l'heure. Le champ d'action de l'A.D.C. est assez limité; d'après sa charte, elle ne doit s'occuper que des domaines qui ont un caractère national. L'Association n'étudiera un problème d'intérêt local ou provincial qu'à la seule condition qu'une demande lui soit parvenue officiellement d'un organisme légal provincial. Cette tâche peut se faire de deux façons: un organisme provincial peut soumettre à l'Association l'étude d'un problème vraiment national; deuxièmement, l'Association, par le truchement de son Bureau des Gouverneurs et de ses divers comités, peut élaborer une politique sur une question provinciale, mais cette question peut avoir des répercussions dans les autres provinces. Dans ces cas, l'étude du problème est entreprise pour servir comme guide ou comme référence aux provinces, sans engager leur responsabilité. Les organismes provinciaux demeurent absolument libres de faire leur cette décision de l'A.D.C. A première vue, ces échanges de vue peuvent paraître imprécis et décousus, mais l'expérience prouve que les provinces, dans toute l'histoire de l'A.D.C., ont toujours accepté ses suggestions. Ces bonnes relations reposent sur la coopération qui préside à l'élaboration des politiques et sur l'étude approfondie qui est faite de toutes les questions au cours des réunions annuelles.

Par ses congrès annuels, qui ont lieu à tour de rôle dans toutes les provinces du pays; par son journal bilingue qui est expédié à tous ses membres; par son Comité des Recherches, qui forme des chercheurs susceptibles de recevoir des bourses de différents organismes gouvernementaux ou philanthropiques; par sa bibliothèque, qui se complète de jour en jour, l'Association remplit bien son rôle de disséminer les notions les plus nouvelles de notre

science et de développer dans l'esprit du dentiste du Canada une sympathie et une compréhension vraiment nationales, des rives du Pacifique jusqu'aux bords de l'Atlantique.

Par son Comité des Relations extérieures, qui représente auprès du public la dentisterie canadienne sous son vrai jour, en contrôlant les écrits profanes traitant de chirurgie dentaire et en organisant des émissions radiophoniques sur des réseaux nationaux; par son Comité d'hygiène dentaire publique, qui répand des notions saines d'hygiène au sein de nos populations et qui conseille les comités provinciaux sur leurs activités, l'Association réalise l'intention de ses fondateurs d'éclairer et de diriger l'opinion publique.

Par ses Comités d'Etude sur l'Assurance-Santé, de Dentisterie industrielle, des Services dentaires, des Services auxiliaires, de Législation, d'Ethique professionnelle, des Services dentaires hospitaliers, l'Association veille aux intérêts matériels de ses membres, en essayant d'améliorer leurs rapports avec leurs employeurs et en imposant les points de vue de la profession dentaire sur toutes les questions qui touchent à la législation du pays.

Dans la discussion des problèmes qui regardent l'exercice de la dentisterie au Canada, l'Association aborde tous les sujets sans parti pris et sans esprit de clocher. Les différences de mentalité inhérentes aux deux groupes ethniques du pays sont respectées et le bilinguisme est bien compris par les dirigeants de l'Association. Toutes les publications, chaque fois qu'il est possible, sont faites dans les deux langues et un item important du budget est consacré à cette oeuvre.

L'Association Dentaire Canadienne, durant les cinquante premières années de son existence, a accompli une besogne admirable au profit de ses membres, des gouvernements et du public.

Les buts que s'étaient proposés ses fondateurs ont été atteints et même dépassés, surtout depuis 1942, depuis que l'Association a retenu les services d'un secrétaire permanent, le Dr Don W. Gullett, qui lui prodigue un dévouement inlassable et un jugement des plus éclairés; elle a multiplié ses activités et l'avenir s'annonce sous les auspices les plus brillants.

L'acquisition d'un édifice pour loger ses quartiers-généraux, à Toronto, est une preuve entre cent autres de la vitalité de notre Association!

C'est pourquoi, à l'occasion de son jubilé, nous ne pouvons que dire: "Que l'Association continue son travail admirable et qu'elle poursuive une carrière si bien commencée!"

GERARD DE MONTIGNY

Evolution de la dentisterie dans Québec et la région, de 1902 à nos jours

par PHILIPPE HAMEL, D.D.S., Québec

L'évolution de la dentisterie dans toute la province se trouve intimement liée à la culture scientifique donnée aux étudiants; on ne saurait donc l'étudier sans un aperçu, du moins sommaire, des progrès de l'enseignement dentaire technique et théorique chez nous.

En 1902, arrivait à son terme la formation des dentistes de la province par le Collège des Chirurgiens-Dentistes. L'enseignement théorique donné, au choix de l'élève, en anglais ou en français, depuis 1893, par des professeurs nommés et payés par la profession elle-même, prenait fin. La nouvelle école de chirurgie dentaire canadienne-française bien qu'affiliée officiellement à l'Université Laval seulement le 5 février 1904, recevait toutefois ses premiers élèves dès 1902.

A Québec, les étudiants pouvaient poursuivre les deux premières années d'étude de la chirurgie dentaire, en inscrivant à la Faculté de Médecine de l'Université Laval, pour les cours d'anatomie théorique et pratique, de physiologie, de chimie et d'histologie. Ils devaient, pour l'étude technique, être clerks dans un bureau de dentiste. Ces deux premières années terminées, les élèves se rendaient à Montréal pour recevoir l'enseignement théorique dans une salle située au troisième étage de l'édifice de l'Université Laval, sur la rue Saint-Denis, près de la rue Sainte-Catherine.

Dès 1902, l'instruction théorique devenait universitaire, tandis que l'enseignement pratique restait encore aux frais du Collège des Chirurgiens-Dentistes, qui acquittait le coût d'une clinique au deuxième étage d'un édifice situé à l'angle nord-ouest des rues Sainte-Catherine et Saint-Laurent. Fréquentaient cette clinique, en 1905, les étudiants des troisième et quatrième années des écoles den-

taires de McGill et de Laval. J'aimerais vous tracer un portrait de sa pauvreté, de son apparence primitive, de son manque d'aseptie, mais, dans un bref article, il me faut rester dans les grandes lignes seulement. Le tour dentaire électrique venait à peine d'apparaître; nous ne pouvions, en ce temps-là, songer à en trouver dans une clinique. Pas de trace de crachoir-fontaine, il va sans dire. L'ensemble de ce local était constitué d'une grande salle logeant une dizaine de fauteuils dentaires des modèles les plus variés; d'un petit laboratoire de prothèse; d'une salle pour l'avulsion des dents; et d'un bureau pour le surintendant; occupé par le vieux Dr J. B. Leblanc, estimé, vénéré de tous les étudiants.

L'étudiant s'initiait à la confection des pièces de prothèse, des couronnes et des ponts, dans le laboratoire d'un dentiste qui l'avait accepté comme élève, moyennant une rémunération versée chaque année pendant quatre ans. Le prix payé par l'élève était souvent dégressif, d'année en année, parce que celui-ci rendait de réels services à son patron, surtout durant les dernières années de sa cléricature.

Dès 1908, la situation s'améliorait et une clinique moderne sous le contrôle de l'Ecole de Chirurgie dentaire de l'Université Laval, s'ouvrait dans l'édifice du journal "La Patrie," rue Sainte-Catherine.

En 1913, une nouvelle clinique plus moderne recevait les élèves dans un édifice tout récemment construit pour l'Ecole de Chirurgie dentaire, à l'angle des rues St-Hubert et DeMontigny, école qui devait, le 14 février 1920, cesser d'être affiliée à l'Université Laval pour appartenir désormais à l'Université de Montréal.

Enfin, une clinique comparable à celles des écoles les plus perfectionnées du monde ouvrait, en septembre 1942, ses portes dans le nouvel immeuble de l'Uni-

versité de Montréal, Boul du Mont-Royal. Cette amélioration graduelle dans l'organisation matérielle des cliniques et des salles d'opération, secondée par un corps professoral de mieux en mieux formé pour l'enseignement, se répercute tout naturellement dans notre région de Québec comme dans le reste de la province.

En 1902, des Trois-Rivières à la Gaspésie, on ne trouvait des dentistes qu'à Québec et à la Rivière-du-Loup. A ce dernier endroit, le docteur Danaïs était le seul à exercer sa profession. Tout au plus, une douzaine de dentistes accordaient leurs services à la population de l'est de la province, quand, aujourd'hui, deux cent quatre-vingt-dix-sept dentistes (297) ne suffisent pas à la tâche. Pour consulter un dentiste, au début du siècle, la clientèle, en général, devait se rendre à Québec et parcourir parfois deux cents ou cinq cents milles.

Vous auriez pensé qu'avec une telle pénurie de dentistes, la prothèse aurait occupé une place prédominante pour laisser la dentisterie opératoire presque complètement négligée, mais tel ne fut pas le cas. Incontestablement, l'avulsion des dents et la confection de dentiers constituaient la principale occupation pour bien des praticiens de cette époque. Néanmoins, nous avions alors à Québec des professionnels de première valeur en dentisterie opératoire.

L'aurification

L'aurification était reconnue, jusqu'à la mise en pratique des incrustations en or coulé et en porcelaine cuite, vers 1910, comme la meilleure restauration et la plus durable. Le dentiste habile reconstruisait les coins de canine et d'incisive avec de l'or martelé. Souvent même les cavités occlusales, mésio- ou disto-occlusales des molaires et prémolaires étaient aurifiées.

Les cavités classe V s'obturaient aussi avec de l'or foulé au maillet automatique. En ces années, l'usage de la digue en caoutchouc était peut-être plus répandu qu'aujourd'hui.

Pour l'examen final de quatrième année, l'étudiant était requis de reconstruire

le coin d'une incisive avec de l'or or martelé et d'obtenir la rétention de son obturation, au moyen d'une queue d'aronde faite sur la face linguale de la dent à obturer.

Le vieux Dr H. D. Ross, de Québec, (admis à la pratique en 1869), un des pionniers de notre profession, a laissé bien avant 1902, un nom célèbre comme opérateur d'aurifications. Il n'avait pas connu les avantages du maillet automatique et devait utiliser les services d'une aide qui, au moyen d'un petit marteau, frappait sur la tête du fouloir que le docteur Ross plaçait sur les cylindres d'or destinés à remplir, un à un, la cavité préparée dans la dent. Oeuvre de patience et d'adresse, car il fallait que les coups de marteau eussent tous la même force pour ne pas obtenir des couches d'or à condensation différente, ce qui provoquait parfois des décollements d'or par lamelles et compromettait tout le travail.

On reconnaissait les docteurs S. Gaudreau et Arthur Langlois, comme des artistes en aurifications. Le travail du docteur Gaudreau particulièrement fait encore l'admiration des confrères d'aujourd'hui, non pas tant au point de vue esthétique qu'au point de vue habileté opératoire. Malgré une clientèle de prothèse fort nombreuse, ces confrères ne négligeaient aucunement la dentisterie opératoire. Les obturations en amalgame d'argent et en oxyphosphate de zinc étaient utilisées couramment. Les couronnes et ponts, de même que les dents sur pivot, venaient réparer les désastres de la carie chez la classe plus à l'aise.

Le docteur Dorval, praticien depuis 1883, s'était un peu spécialisé dans les pièces pour becs-de-lièvre et avait, en bien des cas, obtenu de francs succès.

Le Dr L. N. Lemieux, licencié de 1894, négligeait complètement la prothèse et l'extraction des dents, pour s'occuper exclusivement de dentisterie opératoire. La spécialisation s'annonçait donc déjà à la fin du 19^{ième} siècle.

L'anesthésie

En 1902, l'anesthésie générale s'obtenait avec le chloroforme, l'éther ou le

protoxyde d'azote. L'anesthésie locale se résuait à la congélation au chlorure d'éthyle. Un peu plus tard, on utilisa la cocaïne dans des solutions aqueuses à 1/2 de 1% et de 1%. Au début du siècle, il n'était pas question d'employer un vaso-constricteur dans une solution isotonique avec tel degré de pH. Ces améliorations importantes demeuraient encore inconnues. On injectait de la cocaïne au moyen de seringues toutes en métal. Une rondelle de cuir qu'on écrou venait presser sur le piston, rendait le seringue étanche. L'injection se faisait au bord gingival et à haute pression. L'aiguille d'acier toute courte s'introduisait jusqu'au périoste. Technique douloureuse. La réussite des anesthésies locales parfois complète, souvent partiellement manquée, n'offrait rien de comparable, tous le comprennent, à celle obtenue avec les anesthésiques et les procédés plus modernes. En plus de multiples insuccès et d'alertes peu intéressantes dues à la toxicité de la cocaïne, les effets post-opératoires venaient souvent prolonger les souffrances du patient. La haute pression durant l'injection et l'absence d'isotonie de la solution provoquaient la destruction de trop de cellules, pour la cicatrisation se fit par première intention.

Les accidents mortels rapportés sont très rares, parce que fort heureusement peu de dentistes utilisent la cocaïne comme anesthésique local, et ceux qui l'emploient se servent de solutions à très faible concentration. A ma connaissance, à Québec, c'est un médecin qui a enregistré le dernier décès dû à la cocaïne. Il avait injecté une solution de 5% de cocaïne pour l'ablation d'une lipome dorsal sur une jeune fille. Opération banale qui eut cependant un dénouement fatal et rapide, causé par une trop forte concentration de cocaïne dans la solution injectée.

Le dentiste avait très souvent recours à l'anesthésie générale. Et l'avulsion de toutes les dents se pratiquait souvent en une seule séance. Certains dentistes administraient exclusivement le protoxyde d'azote (sans combinaison avec l'oxygène), quand apparurent sur le marché le somnoforme, puis le dormoforme et le

coryloforme, avec les appareils de Camus et de Detrey. Ces anesthésiques nous venaient de France et étaient constitués de chlorure de méthyle, de chlorure d'éthyle et bromure d'éthyle dans des proportions variables selon le nom de l'anesthésique utilisé. Ils furent très en vogue jusqu'à l'arrivée des appareils plus perfectionnés pour l'administration du protoxyde d'azote combiné avec l'oxygène.

En moins d'une minute et demie, un dentiste d'expérience pouvait édentier le maxillaire supérieur ou une mandibule. Il importait d'endormir profondément son patient de façon à ne pas avoir à lui administrer l'anesthésie de nouveau, une fois l'opération commencée. Aucun tampon pour fermer l'isthme du gosier, aucun appareil à succion pour aspirer le sang. La nature se chargeait de la protection du patient. Les temps de saignement et de coagulation n'étaient pas contrôlés avant ces interventions. Il est étonnant que l'on n'ait pas enregistré plus d'accidents graves. Tout de même, des ennuis de toutes sortes se présentaient. Un dentiste, par exemple, a dû garder un patient chez lui pendant plus d'une semaine pour éviter la mort par suite d'hémorragie.

Nous n'avons pas à rougir du passé

Aux confrères plus instruits que ces méthodes pourraient scandaliser, je serais tenté de dire que nous ne devons pas rougir de notre ignorance passée. Elle est pour ainsi dire dans l'ordre. Et d'ailleurs, ne pas connaître ce qui n'a pas encore été découvert ou compris par les membres les plus instruits d'une profession, n'est pas de l'ignorance, même si aujourd'hui ça lui ressemble singulièrement. Cette absence de savoir doit nous inspirer plutôt de l'humilité, même avec notre science présente assurément très avancée, car rien ne nous assure qu'avec les ans, elle ne s'apparentera pas, à son tour, sur certains points, au ridicule.

Il en est de la dentisterie comme de la médecine. La science d'aujourd'hui devient souvent l'ignorance de demain.

Il faut lire les diagnostics des médecins de Louis XIV rapportés dans le jour-

nal de la Santé du Roi (1), pour apprendre jusqu'à quel degré de ridicule sont descendus des savants, alors qu'ils croyaient planer sur les hauteurs de la science médicale. Louis Bertrand (1) écrit: "Ce journal de la santé du roi, où MM. Vallot, Daquin et Fagon, premiers médecins de Sa Majesté, se mirent tour à tour dans la beauté de leur science et dans son infaillibilité, est assurément le plus magnifique monument que la sottise satisfaite se soit élevée à elle-même." — Ne trouve-t-on pas là tout ce qu'il faut pour nous inspirer de l'humilité?

A cette même époque, les vétérinaires, les maréchaux ferrants représentaient, auprès du roi, le dentiste. Ils n'ont pas laissé, que je sache, de diagnostics, mais il est facile de conclure que leur savoir eût dépassé, en trésors de bouffannerie, celui des médecins. Louis XIV avait perdu ses dents alors qu'il était encore jeune durant son règne et les "dentistes" lui avaient arraché, avec les dents, une partie du maxillaire supérieur gauche, de sorte que l'ancre de Highmore était ouvert. Il a vécu sans pièce de prothèse et a été incommodé toute sa vie par cette ouverture qui laissait les fosses nasales en communication avec la bouche.

Il fait bon de jeter un regard rétrospectif non seulement sur notre passé mais aussi sur celui de notre mère, la médecine, afin de mieux apprécier les énormes progrès accomplis, malgré nos déficiences surprenantes, et surtout afin d'être indulgent pour ce qui nous apparaît comme des erreurs commises par les précurseurs dans notre profession.

Louis Bertrand cite certains diagnostics absolument ridicules (2) établis par les savants de l'époque et il ajoute: "Ne rions pas; ce fut, un jour, de la science!"

Les médecins, secondés des dentistes du dix-huitième siècle, ont contribué pour une large part à ruiner la santé de Louis XIV. Ce roi-soleil eût apprécié les services du plus modeste dentiste du début du vingtième siècle. Que de souffrances et d'inconvénients le dentiste contemporain eût épargnés à Sa Royale Majesté!

En dépit du manque d'aseptie et d'antiseptie, en dépit d'une formation médi-

cale insuffisante, les dentistes à la fin du dix-neuvième siècle et au début du vingtième siècle, ont accompli des merveilles et rendu d'inappréciables services à la population. Si vous me permettez un souvenir personnel, à l'âge de quinze ans, à la fin du 19ième siècle, j'ai été traité par un dentiste québécois. Son assistant m'avait très bien aurifié les incisives médianes. Le patron lui-même m'avait obturé des molaires à l'amalgame et à l'oxyphosphate. Aucune porcelaine synthétique n'était alors connue. Assis dans son fauteuil au siège recouvert de peluche rouge fort usée à certains endroits, j'apercevais, étalées devant mes yeux, des centaines de fraises placées en rangées verticales sur un bloc de bois à gradins troués. Parmi ces fraises encore toutes blanches de la dentine des dents travaillées antérieurement, le dentiste en choisissait une pour me fraiser la dent, avec l'aide d'un tour dentaire à pédale. Admettez que ce n'était pas appétissant. Pour les examens, le même miroir se promenait d'une bouche à l'autre, sans jamais être stérilisé. On pouvait s'estimer heureux si le dentiste songeait à l'essuyer

(1) "LA REVUE UNIVERSELLE", 1er septembre 1923, pp. 539-542: "Louis XIV et ses médecins".

(2) Pour que le lecteur ne pense pas qu'il s'agit d'exagération dans les termes, nous citons ici un extrait d'un diagnostic:

"Ne fût-ce que pour leur punition, et pour mesurer la profondeur d'une telle sottise, lisons, avec tout le sérieux convenable, ce morceau du JOURNAL qui est intitulé: *Reflexions de M. Darwin sur les vapeurs du roi*. Le roi, dit ce docteur, était sujet aux vapeurs depuis sept à huit années, mais beaucoup moins qu'il ne l'avait été auparavant, vapeurs élevées de la rate et de l'humeur mélancolique, dont elles portent les livrées par le chagrin qu'elles impriment et la solitude qu'elles font désirer. Elles se glissent par les artères au coeur et au poulmon; où elles excitent des palpitations, des inquiétudes, des nonchalancesses et des étouffements considérables. De là, s'élevant jusqu'au cerveau, elles y causent, en agitant les esprits dans les nerfs optiques, des vertiges et des tournoiemens de tête, et, frappant ailleurs le principe des nerfs, affaiblissent les jambes de manière qu'il est nécessaire de secours pour se soutenir et pour marcher,—accident très fâcheux à tout le monde, mais particulièrement au roi qui a besoin de sa tête pour s'appliquer à toutes ses affaires. Son tempérament penchant assez à la mélancolie, sa vie sédentaire pour la plupart du temps et passée dans les conseils, sa voracité naturelle qui le fait beaucoup manger ont fourni l'occasion à cette maladie par les obstructions fortes et invétérées que les crudités ont excitées dans les veines, qui, retenant l'humeur mélancolique, l'empêchent de s'écouler par les voies naturelles et lui donnent l'occasion, par leur séjour, de s'échauffer et de fermenter et de s'exciter par cette tempête... —Arrêtons nous: il y en a long comme cela! Nous savons maintenant ce que c'est que les vapeurs de Sa Majesté... et pourquoi votre fille est muette!... Mais, encore une fois ne rions point: cela fut de la science!"

avant de le plonger dans votre bouche. Tout de même, je conserve, dans ma cavité buccale, toutes les dents obturées vers 1894 et surtout une molaire de six ans dévitalisée au moyen d'une pâte arsénicale et dont les canaux radiculaires n'ont pas été obturés. La dent était tellement cariée qu'elle a dû être recouverte d'une coiffe en or. Cette dernière fut renouvelée, après une trentaine d'années, et la seconde couronne m'a déjà donné un service de plus de vingt ans et semble bonne pour un autre quart de siècle. Je compte qu'elle assistera à mon ultime départ.

Il ne faut pas généraliser avec un cas, j'en conviens. Toutefois, quand ces exemples vous concernent personnellement, ils vous frappent davantage et vous laissent une profonde admiration, doublée de gratitude, pour les pionniers de notre profession.

En 1902, on remplaçait les dents antérieures trop cariées par des dents à pivot, particulièrement avec les dents "Davis." On fabriquait aussi la couronne "Richmond" qui n'était pas l'idéal au point de vue esthétique mais qui durait vingt-cinq, trente ans et plus.

La prothèse se limitait aux pièces en vulcanite. Il arrivait par exception que l'on confectionnât une pièce de prothèse avec base en aluminium frappé sur laquelle les dents étaient fixées au moyen de vulcanite. C'était, d'ailleurs, un travail requis à l'examen final en quatrième année. Plus rarement encore, les dentistes les plus réputés plaçaient dans la bouche de leurs patients, des pièces en or frappé sur lesquelles étaient fixées des dents en porcelaine avec contreplaquages en or soudés sur la pièce principale.

Au commencement du vingtième siècle, nous trouvons des crampons en platine sur toutes les dents d'un jeu de dents, sur les molaires, les prémolaires aussi bien que sur les canines et les incisives. Quel luxe! Le coût de ce jeu ne dépassait pas une piastre. Nous avions aussi les dents avec gencives en porcelaine en groupe de deux et de trois dents. L'habileté du dentiste consistait surtout à faire des joints

imperceptibles avec ces blocs de porcelaine.

Les honoraires et le coût de la vie

Les honoraires du dentiste s'élevaient à quatorze dollars (\$14.00) pour une pièce de prothèse, et à vingt-cinq dollars (\$25.00) pour des pièces supérieure et inférieure. De ce prix était déduit le coût des extractions; ce qui, en somme, voulait dire que les extractions étaient gratuites pour quiconque se décidait à se faire ajuster des pièces de prothèse. Le dentiste exigeait vingt-cinq sous pour une extraction, et un autre vingt-cinq sous pour l'anesthésie locale. La somme versée pour l'anesthésie n'était pas déduite sur les pièces de prothèse.

A Lévis, vers 1903-04, un confrère extrayait les dents pour vingt-cinq sous l'unité, anesthésie comprise, puis déduisait le tout sur le coût du dentier. Cette coutume assez généralisée constituait, nous devons l'avouer, un moyen peu élégant de s'attacher le client.

Une prophylaxie ou une obturation en amalgame ne coûtait qu'une piastre. Une aurification se payait trois ou cinq piastres. L'anesthésie générale se pratiquait au tarif de deux piastres, plus vingt-cinq sous par dent extraite.

Dévitaliser une molaire, sceller à l'oxyphosphate un antiseptique dans la chambre pulpaire et si possible dans les canaux radiculaires, puis recouvrir le tout d'un amalgame, ne coûtait que deux dollars et cinquante sous (\$2.50) au patient.

Ces prix dérisoires et ces méthodes peu recommandables pour l'éthique professionnelle ont longtemps fait le bonheur des clients et des dentistes. A cette époque, même avec ces honoraires ridiculement peu élevés, il était plus facile qu'aujourd'hui de pratiquer des économies afin de prévoir pour les vieux jours. Les villes étaient administrées par des échevins choisis parmi ceux qui se faisaient un devoir et un honneur de servir la communauté sans rémunération. Les administrations publiques ne requéraient pas autant de temps, de la part des échevins, et les taxes n'étaient pas encore de véritables confiscations. L'impôt sur le revenu

n'avait pas encore fait sa cruelle apparition. C'est en 1917, que prit naissance cet obstacle à l'épargne qui, depuis lors, n'a jamais cessé d'accroître ses exigences. Le budget du gouvernement fédéral ne dépassait pas ce que coûte, aujourd'hui, la seule administration de la ville de Montréal. Les administrations publiques se montraient peu exigeantes. Aussi le loyer d'un cabinet de dentiste ne s'élevait à guère plus que dix ou vingt-cinq piastres par mois. Une fille de bureau se trouvait bien rémunérée avec deux dollars et cinquante sous ou trois dollars par semaine. Un mécanicien-dentiste qui touchait quinze ou vingt dollars par semaine, s'estimait chanceux (1).

Heureuses années pour la clientèle que celles qui marquèrent le début du vingtième siècle, mais aussi heureuses années pour le dentiste. Ce dernier ignorait les immenses progrès que devait accomplir la science dentaire au cours du prochain demi-siècle, mais ses honoraires laissaient ses services à la portée de la majorité. Aujourd'hui, avec des améliorations voisinant la perfection dans la technique et dans les traitements, les honoraires du dentiste contemporain deviennent prohibitifs pour une forte partie de la population. C'est malheureusement le plus fort appel en faveur de la socialisation de la dentisterie, surtout lorsque le public plus au courant de la valeur des services dentaires, les requiert avec instance.

Quelle solution apporter à ce problème? J'ai osé en parler dans des articles parus dans le Journal de l'Association Dentaire Canadienne, en juillet, août et septembre 1942, mais la Dictature économique a fait pression pour me fermer les colonnes de la Revue dentaire sur ce sujet.

Notre progrès a subi des retards

Jusqu'à il y a une quinzaine d'années, le degré de culture chez tous les dentistes de notre région n'avait pas atteint en général celui désiré par la profession. L'explication en est facile lorsque l'on

sait les luttes qui se sont poursuivies entre le Collège des Chirurgiens-Dentistes de la province de Québec et la Faculté de Chirurgie Dentaire de l'Université de Montréal de 1920 à 1934, pour empêcher que la faculté abaisse le niveau de culture chez les futurs étudiants. On peut dire, sans exagération, que pendant plus d'un quart de siècle, l'Université accepta des élèves souvent aucunement préparés à l'étude d'une profession libérale, et cela en dépit des véhémentes protestations du Bureau des Gouverneurs, protestations qui, le 13 janvier 1934, furent suivies de la démission de sept de ses membres.

Québec et sa région ont souffert de cette situation, mais peut-être moins que le reste de la province. Pour que tout membre de la profession sache combien il a fallu lutter pour que le niveau de la profession soit, aujourd'hui, à son plus haut point, le Bureau des Gouverneurs devrait, semble-t-il, publier un tract qui contiendrait tous les documents, les discours, les lettres, les extraits de procès-verbaux publiés sur la question de l'immatriculation, dans les rapports du registraire du Collège des Chirurgiens-Dentistes de la province de Québec pour les exercices 1926-27, 1927-28, 1932-33, 1933-34.

Ce tract, tous les étudiants et tous les dentistes se feraient un devoir de se le procurer. L'histoire de notre profession ne saurait s'apprendre sans connaître ces événements d'une grave importance.

C'est à l'honneur de Québec d'avoir protesté à l'unanimité par sa Société de Stomatologie contre les manoeuvres pour réduire les qualifications culturelles des aspirants à l'étude de la chirurgie dentaire.

C'est aussi à l'honneur du Bureau des Gouverneurs d'avoir, le 4 octobre 1926, écrit à Mgr A. V. J. Piette, Recteur de l'Université de Montréal, une lettre qui restera un monument à la gloire de notre profession, lettre dont tous les confrères devraient connaître la teneur. Sa place serait toute trouvée dans le tract précédemment suggéré.

(1) Avec feu le docteur Adolphe Lacroix, je partageais une chambre sur la rue Saint-Denis, en face de l'Université Laval, à Montréal, lorsque j'étais étudiant, et le coût de cette chambre était de huit piastres par mois. Nous étions logés, tous les deux, pour moins de deux piastres par semaine.

Progrès remarquables en dépit des obstacles

Les progrès, malgré de sérieux obstacles, ont été constants chez les dentistes, même si certains confrères ont manœuvré, dans un but de lucre, a-t-on écrit, pour retarder notre culture générale de plus d'un quart de siècle.

Le chemin parcouru depuis cinquante ans

Je vous ai décrit brièvement notre point de départ en 1902, et cela vous permet de constater tout le chemin parcouru depuis.

Voyez les progrès dans l'anesthésie générale, tronculaire et par infiltration. Voyez les appareils et les instruments pour les administrer.

Voyez la précision des incrustations, grâce au perfectionnement des substances pour investir les modèles, des appareils avec usage du pyromètre pour les chauffer et les couler.

Voyez la beauté esthétique de ces ponts en plastique, de ces pièces de prothèse en Vitallium ou en plastique.

Voyez l'obturation des cavités dentaires avec ces substances plastiques durables et imperceptibles à l'œil.

Voyez ces coiffes en plastique ou en porcelaine, ces dents translucides pour prothèse ou "bridgework."

Voyez la chirurgie buccale avec ces incomparables progrès; l'usage des antibiotiques pour les infections de toutes sortes; l'invention du tube Coolidge pour la

radiographie, en remplacement du tube de Crookes si difficile de manipulation et tellement imprécis; le fini de la technique dans l'orthodontie; les étonnants progrès de l'endodontie, etc.

Toute cette rénovation opérée depuis cinquante ans dans notre profession laisse loin en arrière de nous ce qu'était la dentisterie au début du vingtième siècle.

Il nous reste un long chemin à parcourir vers la prévention de la carie, pour rejoindre l'avance prise dans la voie de la restauration des dégâts causés par cette maladie dentaire.—"Prévenir vaut mieux que guérir" dit l'adage. Au cours des années à venir, nous trouverons, nous avons de fortes raisons de l'espérer, le moyen d'enrayer la carie sur une haute échelle, en dépit de notre faiblesse, de nos caprices devant le boire et le manger, et en dépit de tout ce qui, dans la vie moderne trépidante, disloque le fonctionnement d'une ou de plusieurs de nos glandes endocrines, détraque notre métabolisme, use prématurément nos nerfs. Que ne débute-t-on par la fluoruration de l'eau potable de toutes nos villes? Ce procédé peu coûteux offre une haute valeur préventive contre la carie. L'expérience l'a prouvé. Faudra-t-il attendre que cette question intéresse l'électorat, avant que s'en occupent les conseils municipaux ou les bureaux d'hygiène? Oh! Bien Commun, que de fois l'on t'immole sur l'autel de l'électoratisme!!

22, Place d'Aiguillon



Evolution de l'enseignement à la Faculté de Chirurgie Dentaire de l'Université de Montréal

par PAUL GEOFFRION, B.A., D.D.S., F.I.C.D., F.A.C.D., Montréal
vice-doyen de la Faculté.

Si les dentistes de ma génération se souviennent bien de la vieille Ecole dentaire de la rue St-Hubert, ils connaissent moins la nouvelle Faculté de Chirurgie Dentaire qui célèbrera cette année le dixième anniversaire de son installation dans le nouvel édifice de l'Université.

Bien que cette installation fut l'un des événements les plus considérables de son histoire, à cause des cadres plus vastes qu'elle y trouvait, elle fut surtout l'occasion d'un nouvel essor spirituel et scientifique, sans lequel le déploiement architectural de la montagne eut perdu toute signification.

Sans vouloir affirmer que cet essor corresponde à toutes les ambitions et malgré quelques déficiences que nous considérons comme temporaires, il y a eu à la Faculté, surtout depuis quelques années, une évolution et des changements radicaux qui engendrèrent parfois des réactions assez vives.

Comme il est juste et raisonnable que la profession sache de temps en temps, quelle est la formation, la culture de ses futurs adhérents, il m'a semblé bon de donner ici les grandes lignes de cette évolution.

Donc, en 1944, les nouveaux dirigeants de la Faculté, qui depuis longtemps désiraient modifier l'enseignement dentaire, s'unirent dans un commun effort pour élaborer un programme d'étude qui offrirait aux jeunes, des ressources et des conditions que n'avaient pas connues leurs prédécesseurs.

Dans le plan général dressé selon la conception qu'ils avaient du rôle d'une faculté dentaire, les dirigeants de la nouvelle école placèrent au premier rang l'éducation médicale et les sciences de

base. Pour assurer cet enseignement, ils s'adressèrent à la Faculté de Médecine, qui accepta de donner à nos étudiants, durant deux années et en compagnie de leurs propres élèves, les mêmes cours théoriques et pratiques de chimie physiologique, d'anatomie générale, de physiologie, de bactériologie, d'histologie et de pathologie.

Ce système qui est sans doute le meilleur ne donna pas au début les résultats qu'on *attendait*. Chez un grand nombre d'étudiants, l'inscription préliminaire, c'est-à-dire le baccalauréat ès-arts exigé pour l'admission à l'étude de la chirurgie dentaire, s'avéra insuffisant; non pas parce que le baccalauréat en lui-même était mauvais, mais parce que le niveau des études que certains étudiants avaient faites n'était pas assez élevé pour suivre avec avantage les cours de chimie physiologique ou d'histologie qui sont aujourd'hui la base de la chirurgie dentaire.

Pour remédier à cet état de chose qui devenait de plus en plus inquiétant, les autorités de la Faculté décidèrent de hausser les exigences d'admission.

Jusqu'à maintenant, il suffisait à un jeune homme de posséder son parchemin de baccalauréat "ès-arts" pour étudier la chirurgie dentaire. Désormais les conditions d'admission seront les mêmes que celles préconisées par la Faculté de Médecine. Outre le baccalauréat, il faudra que le candidat ait conservé durant tout son stage d'études classiques, un minimum de points dans les matières scientifiques.

Comme on pouvait s'y attendre, cette décision de hausser les exigences d'admission provoqua des réactions assez vives. Pour quelques-uns, ce relèvement était une concession à l'américanisme. Pour

d'autres, ces mesures qu'ils considéraient trop sévères bloqueraient le recrutement des élèves en chirurgie dentaire. Comme il y avait là double aveu de pauvreté en candidats et en satisfaction facile, ce qui était un double malheur dans un domaine aussi important, les autorités de la Faculté ne s'arrêtèrent pas aux commentaires; elles s'ingénierent à faire comprendre que l'objet même des nouvelles réformes n'était pas de remplir l'école mais de la remplir bien. Si les candidats faisaient défaut pour le moment, il faudrait attendre jusqu'à ce qu'il s'en présente munis des qualifications voulues. Elles avaient raison puisque déjà les élèves se présentent en plus grand nombre et que le temps n'est pas loin où la Faculté sera remplie de jeunes étudiants qui auront fait preuve, non seulement de capacité à débiter un leçon, mais aussi de culture scientifique profonde qui leur permettra de suivre les progrès d'une science qui évolue de jour en jour.

Les dirigeants de la Faculté exigent donc aujourd'hui de leurs élèves une instruction préliminaire solide et une formation médicale encore plus avancée. Ils n'ont pas oublié pour cela le côté pratique de la chirurgie dentaire. Non seulement ils ont modifié et amélioré l'enseignement pratique, mais ils ont aussi innové dans ce domaine en augmentant le prestige de notre Faculté à travers le monde.

Une des innovations les plus fructueuses fut sans aucun doute l'enseignement de groupes pour les étudiants de troisième année. Cet enseignement, qui consiste à assembler pour une période de cinq à six semaines dix élèves à un service particulier, a déjà donné des résultats très prometteurs, puisqu'il permet à nos élèves de bénéficier d'une formation presque individuelle. Ce séjour de cinq à six semaines, passé exclusivement dans une spécialité de la chirurgie dentaire, permet aux stagiaires de se familiariser davantage avec une matière d'enseignement tout en traitant un plus grand nombre de patients.

Une autre innovation fut aussi le stage obligatoire que doivent faire les élèves de quatrième année dans un bureau modèle où ils traitent des patients, avec l'aide d'une garde-malade et dans les circon-

stances mêmes où ils exerceront leur profession. Ce stage durant lequel le futur dentiste laissé à lui-même prend un contact plus intime avec ses patients, lui permet de se rendre compte des réalités de la pratique professionnelle et le force à développer son esprit d'observation.

D'autres initiatives sont venues s'ajouter à celles que nous venons de rapporter et si l'espace nous manque pour les signaler toutes, mentionnons parmi celles-ci: les réunions pédagogiques du personnel enseignant qui ont pour objet de tenir à jour les programmes d'études; les séminaires qui permettent aux élèves de se mettre en courant des divers problèmes d'actualité; la nomination de cinq de nos jeunes professeurs dentistes à la Faculté de Médecine qui, au contact des maîtres de cette Faculté, seront bientôt en mesure d'envisager d'une façon plus parfaite les problèmes médicaux et les synthétiser plus clairement à nos élèves; l'augmentation du corps enseignant qui comprend aujourd'hui sept professeurs plein-temps, quatorze demi-temps et quarante-huit à temps partiel.

Cependant si les dirigeants de la Faculté se sont efforcés d'améliorer les programmes d'études théoriques et pratiques, ils se sont aussi occupés du complément normal de l'enseignement régulier: l'enseignement post-universitaire qui s'alimente aux sources les plus modernes et dont le but principal est de produire cette ferme maîtrise des techniques qui caractérisent les praticiens experts.

Cet enseignement post-universitaire, qui se limitait d'abord à la chirurgie buccale, la prothèse, le diagnostic et l'orthodontie, eut un tel succès, que la Fondation Kellogg octroya à la Faculté une somme considérable qui lui permit d'inaugurer des cours d'une année complète en chirurgie buccale, de deux années en orthodontie et enfin au sommet de cet enseignement post-universitaire, des cours hautement spécialisés destinés aux orthodontistes seulement et qui attirent chaque année à notre faculté une cinquantaine de spécialistes venus de toutes les parties des Etats-Unis, du Canada, de l'Europe et même de l'Asie.

Comme on peut le voir par ce court

exposé de l'évolution de l'enseignement à la Faculté de Chirurgie Dentaire depuis dix ans, on est loin de l'époque où l'on s'occupait surtout de former "des techniciens habiles de procédés mécaniques et de tours de main."

Aujourd'hui, le programme des études est chargé, mais nos étudiants s'y astreignent avec courage et bonne grâce, car ils sont convaincus que sous l'impulsion d'un doyen dynamique, assisté d'un personnel enseignant jeune, actif et enthousiaste, la Faculté atteindra bientôt le but qu'elle s'est proposé, celui de servir la chirurgie

dentaire avec modestie, avec fidélité et avec passion.

En terminant, qu'il me soit permis de rappeler ici le souvenir de son Excellence Monseigneur Joseph Charbonneau, ancien chancelier de l'Université, qui fut l'initiateur de cette évolution, et qui, dans des circonstances souvent très difficiles, défendit au besoin ceux qu'il avait choisis comme ses collaborateurs dans la rénovation d'une faculté qu'il se plaisait à appeler "sa faculté préférée."

2900 Boul. du Mont-Royal

Démographie dentaire du Québec 1902-1952

par VIGER PLAMONDON, D.D.S., Québec

Lors de la fondation de l'Association Dentaire Canadienne, en 1902, notre profession existait depuis 1869 et était administrée par l'Association Dentaire de la Province de Québec. Deux ans plus tard, soit en 1904, notre groupement professionnel fut incorporé et devint "LE COLLEGE DES CHIRURGIENS-DENTISTES DE LA PROVINCE DE QUEBEC."

Notre ancien doyen, d'abord de l'École Dentaire et plus tard, de la Faculté de Chirurgie Dentaire de l'Université de Montréal, le docteur Eudore Dubeau, fut notre représentant provincial auprès de l'Association Dentaire Canadienne, à Toronto. Il en devint aussi le secrétaire.

Aujourd'hui, après 50 années d'existence, cette Association ne compte plus qu'un seul survivant parmi ses fondateurs; j'ai nommé, le docteur Eudore Dubeau. Hommages, félicitations et longue vie à ce pionnier!

Lors de notre adhésion à ce nouvel organisme dentaire canadien, l'Association Dentaire de la Province de Québec avait décerné 242 licences en ses 33 années. Les praticiens n'étaient répartis que dans quelques villes seulement.

Voyons maintenant où nous en sommes en 1952.

a) Provenance des diplômés

En premier lieu, d'où venaient nos diplômés avant de subir l'examen requis pour l'obtention de la licence du Collège des Chirurgiens-Dentistes de la Province de Québec?

- 1- Bishop University, Lennoxville, P. Qué.
- 2- Université Laval, section de Montréal, Montréal, P. Qué. (avant sa séparation)
- 3- McGill University, Montréal, P. Qué.
- 4- Université de Montréal, Montréal, P. Qué.
- 5- des autres universités canadiennes et étrangères.

b) Répartition des licenciés.

Dans le Journal de l'Association Dentaire Canadienne 1946, Volume 12, No 3, p. 156-160, No 4, p. 204-208 et dans le rapport du registraire du Collège des Chirurgiens-Dentistes de la Province de Québec (1946) avec tableau adjacent, nous avons publié des statistiques détaillées de cette province avec répartition dentaire par comté.

Aujourd'hui, nous vous présentons, à l'occasion du cinquantenaire de l'Association Dentaire Canadienne, un tableau comparatif ci-joint, illustrant le nombre des licenciés par 5 ans de 1902-1952.

Disons aussi que rares sont les comtés de cette province qui n'ont pas de nos confrères.

De 1869 à 1952, le nombre des licenciés dans cette province a atteint 1,700, alors que de 1902 à 1952, soit 50 ans, il est de 1,439. De ce nombre, 1,212 pratiquent actuellement un peu partout dans la province. Cela ne veut pas dire que nous soyons trop nombreux, mais considérons plutôt les facteurs suivants:

- a) augmentation de notre population;
- b) éducation du peuple faite par la Ligue d'Hygiène Dentaire;
- c) progrès scientifiques;
- d) installations de cliniques dentaires dans les Unités Sanitaires, Municipales et Industrielles;
- e) causeries radiophoniques diffusées dans les différents centres sous les auspices de Sociétés Dentaires, etc. . .

Les nouveaux licenciés sont à peine assez nombreux pour remplacer ceux qui cessent de pratiquer pour raisons de décès ou de retraite. Ils ne pourront faire face aux besoins sans cesse grandissants de la population. Ajoutons à cela, le fait que 90% des confrères exercent leur profession dans les centres urbains, et on se fera une idée de la nécessité urgente d'une augmentation du nombre de dentistes. Vous voyez d'ici dans quelle situation nous serons, si l'assurance-santé est mise en vigueur par le gouvernement.

c) *Les présidents de notre Collège de 1902-1952.*

Docteurs	F. A. Stevenson	1902-04
	A. I. Scott	1904-05
	L. N. Lemieux	1905-06
	F. A. Stevenson	1906-08
	J. Berwick	1908-10
	A. A. Lantier	1910-14
	C. Morisson	1914-16
	J. Nolin	1916-18
	J. S. Ibbotson	1918-19
	M. Fortier	1919-20
	J. S. Dohan	1920-22
	J. Nolin	1922-24
	D. P. Mowry	1924-26
	E. Charron	1926-28
	D. P. Mowry	1928-30
	A. Langlois	1930-32
	V. Olivier	1932-32
	G. G. Armitage	1932-36
	C. Archambault	1936-38

W. G. McCabe	1938-40
A. Fortier	1940-42
D. P. Mowry	1942-44
A. Surprenant	1944-46
K. Carver	1946-48
Docteur E. Vinet	1948-52

d) *Les secrétaires et registraires de notre Collège 1902-52.*

Docteurs	E. Dubeau	1902-20
	A. Delorme	1920-22
	D. Forest	1922 à date

e) *Causes des variations.*

- 1- Amendements à la loi dentaire (1919)
- 2- Refonte de la loi dentaire (1924)
- 3- Exigence du baccalauréat pour l'admission (1930)
- 4- Crise financière (1934)
- 5- Décès, abandon de la pratique, déménagements dans d'autres provinces ou pays.

Les statistiques annuelles montrent que le plus petit nombre de licences émises en une année fut de 4 pour chacune des années 1904 et 1905, tandis que le nombre le plus élevé fut de 104 en 1924.

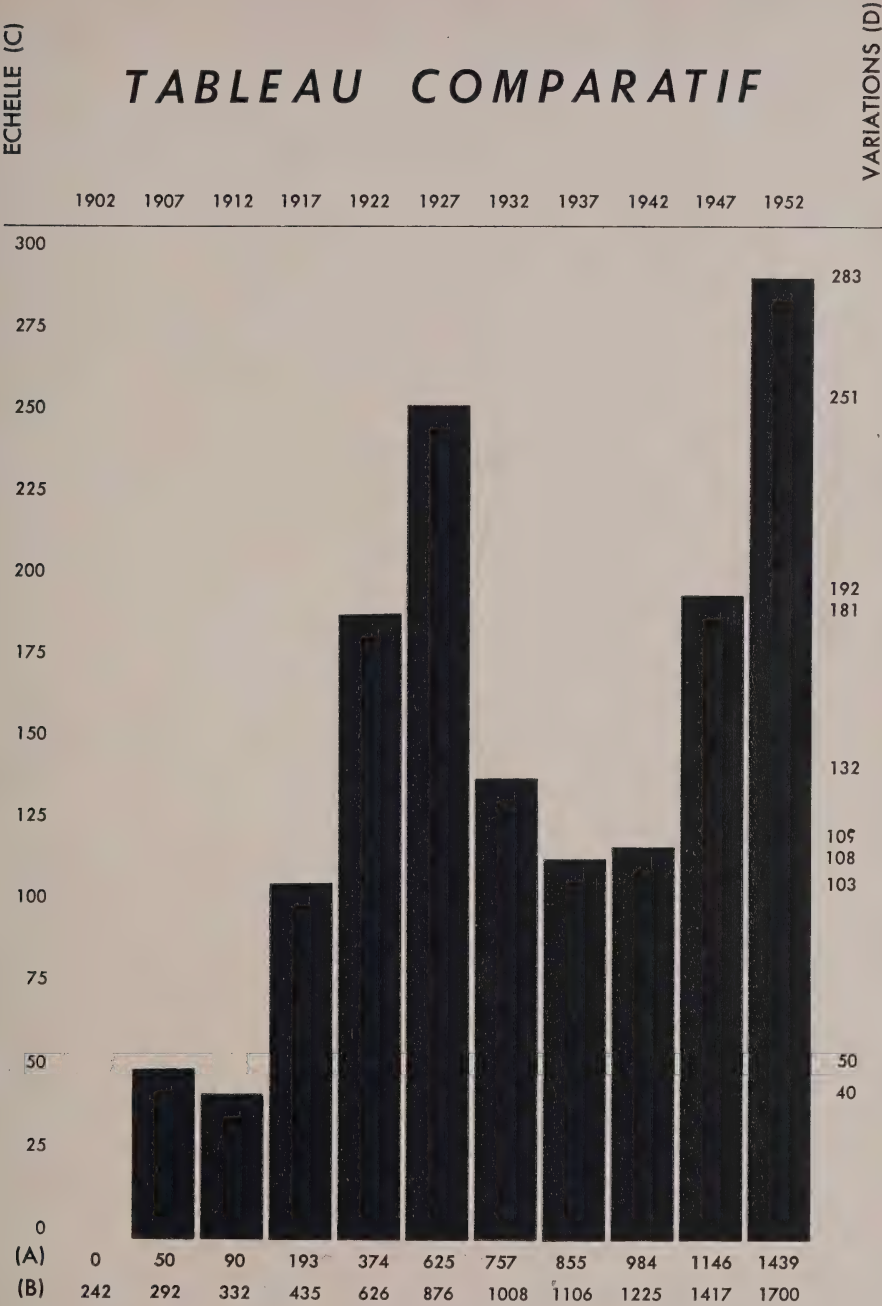
Quant à la moyenne annuelle des licences pour les 50 dernières années, elle est de 28.7% alors qu'elle est de 2.04% depuis la loi de 1869, date des premières licences provinciales.

f) *Corps Dentaire.*

Nous ne possédons pas de statistiques sur le Corps Dentaire de la Première Grande Guerre, corps qui ne fut organisé qu'à la fin de 1917, mais d'autre part, nous savons que notre profession a enrichi le Corps Dentaire de 215 membres du Québec au cours du conflit 1939-45. Plusieurs ont servi dans les deux guerres. Certains furent blessés et d'autres y sont morts. Hommages et considérations à ces valeureux . . . Pour ce qui est du conflit coréen et de la 27^e brigade actuellement en Europe, nous n'avons pas de statistiques officielles; mais à ceux-ci comme à ceux-là, nous leur souhaitons: "Bonne chance! Santé et prompt retour au pays du Québec!"

g) *Tableau comparatif.*

7, avenue des Erables



LÉGENDE

- A:—Nombre des licences accordées de 1902 à 1952.
- B:—Nombre des licences émises de 1869 à 1952.
- C:—Echelle servant de base dans l'augmentation des licences.
- D:—Variations dans le nombre des licences par 5 ans.

Histoire de la profession dentaire dans la métropole

par ARMAND FORTIER, D.D.S., Montréal
professeur d'Histoire de l'Art dentaire,
Université de Montréal.

Les événements historiques ont rarement la complaisance de se confiner à une époque précise ou à des dates prédéterminées. Il eût été plus facile de délimiter les grandes époques de l'Histoire, si Constantinople eût été conquise en 1450 au lieu de 1453, et l'Amérique découverte en l'an 1500.

Il en est ainsi dans la petite histoire. On ne peut tracer le développement de la profession dentaire au cours du dernier demi-siècle, sans souligner les facteurs qui ont influencé ses progrès, en d'autres mots, sans remonter à ses origines. Les débuts de la pratique dentaire, tout en s'identifiant à l'art du thérapeute, furent, à l'époque coloniale, plus que modestes.

On souligne bien en passant, dans les almanachs du temps, la présence de "dentateurs" (comme on les nommait alors) ou "d'arracheurs de dents" et "saigneurs", mais aucun de ces pionniers ne semble digne de la tradition de Pierre Fauchard.

Ce n'est que vers 1850 que l'on voit apparaître à Montréal, des dentistes dignes de ce nom. L'Ecole dentaire de Baltimore existait déjà depuis 1840 et son influence, de même que celle de Harvard, ne tarda pas à se faire sentir.

Le dentiste le plus éminent de cette époque fut incontestablement Aldis Bernard. Originaire des Cantons de l'Est, il étudia aux Etats-Unis, pour ensuite s'établir à Montréal vers 1841, portant à quatre le nombre des praticiens. Il s'émut du fait que l'art dentaire n'avait au Canada aucun statut professionnel et employa tous ses efforts à remédier à cette lacune. Il greffa d'abord à la loi d'incorporation des médecins une clause accordant aux dentistes des privilèges analogues.

Mais l'édifice qui abritait alors à Mont-

réal le gouvernement du Bas-Canada, fut détruit par un incendie à la suite des sanglantes émeutes de 1849, et de son labeur il ne resta que fumée. Il ne perdit pas courage, et, après maints échecs, l'année 1869 vit le couronnement de ses efforts; cette année-là est, en effet, mémorable pour nous par l'incorporation de l'Association des Chirurgiens-Dentistes, qui devint plus tard le Collège des Chirurgiens-Dentistes de la Province de Québec, dont il fut d'ailleurs le premier Président.

Il s'intéressa vivement à la chose publique et fut élu conseiller du quartier centre, en 1858. Dans ces fonctions, il témoigna d'une rare vision. Le Conseil municipal l'appela en 1873 à remplacer le maire Cassidy, et, à l'élection suivante, son élévation au poste de premier magistrat fut ratifiée par l'électorat de la métropole.

Administrer, c'est prévoir et Aldis Bernard fit preuve d'une rare prévision. Entrevoquant que l'immense avenir de Montréal nécessiterait, pour sa population, des parcs, de l'espace, des terrains de jeux, il fit tour à tour acquérir par la ville: le Mont-Royal, l'Île Sainte-Hélène, et la ferme Logan, mieux connue aujourd'hui sous le nom de Parc Lafontaine.

Bref, il fut le père de la profession dans notre province, un administrateur d'une largeur de vues peu commune, et les dentistes peuvent à bon droit s'en enorgueillir.

La profession dentaire s'est toujours réclamée de l'école américaine, et les dentistes d'alors suivaient étroitement les découvertes scientifiques d'outre-frontière. C'est ainsi que le Dr Brewster fut le premier à administrer, en 1860, l'anesthésie générale pour une intervention dentaire. Il appliquait les découvertes des den-

tistes américains Wells (1844) et Morton (1846), qui ont donné au monde l'anesthésie générale au protoxyde d'azote et à l'éther.

La découverte de l'anesthésie et de la vulcanisation du caoutchouc révolutionna la pratique dentaire. Jusqu'à ce jour, le disciple de Fauchard devait, après avoir enlevé les dents sans anesthésie, confectionner un appareil de prothèse en le sculptant tout d'une pièce dans un bloc d'ivoire ou d'os. Ce dentier était ensuite retenu en place par des ressorts fixés aux dents du bas. La vulcanisation du caoutchouc fournit un moyen facile et économique de remplacer les dents.

Ce dernier aspect de la pratique dentaire eut pour effet de faire affluer dans les cliniques privées du temps, patients et apprentis! En effet, le seul moyen d'étudier l'art dentaire était d'en faire l'apprentissage chez un praticien, tout comme le droit et le notariat. L'aspirant, après avoir fourni un certificat d'études secondaires, s'inscrivait au bureau du Secrétaire, puis faisait une cléricature de trois ans chez un dentiste licencié. Le nombre "d'apprentis", ou clerks, allait de pair avec la réputation du maître, et certains dentistes réputés avaient trois et même quatre aspirants qui suivaient leur enseignement à leur cabinet. Cette méthode de formation avait, certes, ses lacunes dont la moindre n'était le manque d'uniformité. Tel dentiste, excellent opérateur mais en reste de formation scientifique, ne pouvait transmettre que les connaissances qu'il possédait.

Le Collège des Chirurgiens-Dentistes en vint à la conclusion qu'un enseignement plus orthodoxe s'imposait, et, en 1892, fondait la première école dentaire. Elle était située Square Phillips, angle Cathcart, et eut pour premier directeur le Dr G. W. Beers. Cette école fonctionna jusqu'en 1896. Les dirigeants en demandèrent alors l'affiliation aux universités McGill et Laval de Montréal. Devant le refus de ces institutions, l'école dentaire s'affilia à l'université Bishop, de Lennoxville, dont la faculté médicale occupait un immeuble situé angle Ontario et Jeanne-Mance. Cette mesure s'imposait en regard du manque de facilités que

possédait le Collège pour enseigner les matières médicales et scientifiques.

En 1904, l'école dentaire, à la suite de longs pourparlers, était enfin affiliée à l'Université Laval de Montréal. Le Dr Eudore Dubeau en fut nommé doyen et fit appel à l'active collaboration de ses collègues, le Dr Joseph Nolin, vice-doyen, et le Dr J.-G.-A. Gendreau, secrétaire. Le Dr Dubeau, bachelier ès-sciences de l'université Laval de Québec, faisait alors, belle figure à Montréal. Après avoir poursuivi concurremment pendant deux ans ses études médicales et dentaires, il optait pour la profession qu'il devait illustrer. Son cabinet était fort achalandé. Il était en plus doyen et secrétaire du Collège des Chirurgiens-Dentistes et il s'intéressait vivement à l'administration municipale. Il fut durant de longues années échevin du quartier St-Jacques. La République du Portugal lui demanda de la représenter à Montréal, et il est aujourd'hui le doyen du corps consulaire de la métropole. Co-fondateur de la Fédération Dentaire Internationale et de l'Association Dentaire Canadienne, dont il fut le deuxième Président, le Dr Dubeau vit son mérite reconnu par la France qui lui décerna la décoration de Chevalier de la Légion d'Honneur.

Le Dr Joseph Nolin, vice-doyen, fut la cheville ouvrière de la nouvelle école. Peintre, poète, philosophe, sa haute probité professionnelle et son idéal furent une inspiration pour les nombreuses générations de dentistes, chez qui le souvenir de "Papa" Nolin n'est pas près de pécés théoriques et techniques de la science dentaire ou médicale ne lui était étranger. En plus d'enseigner à ses élèves les aspects théoriques et techniques de la science dentaire, il sut leur inculquer l'amour du beau; il élevait leurs ambitions au-dessus des vulgaires considérations journalières et matérielles. Ce fut sous son impulsion que l'hygiène dentaire prit à Montréal et dans la province un essor qui ne s'est pas ralenti.

Président du Comité d'Hygiène de la Commission scolaire de Montréal, il sut par son éloquence et sa conviction persuader ses collègues, et par eux les com-

missaires eux-mêmes, de la nécessité d'un service d'hygiène dentaire chez notre population scolaire. Une enquête menée dans les écoles de Montréal et d'Outremont, avait révélé l'existence d'un état des choses alarmant: 96.4% de nos écoliers, riches comme pauvres, souffraient de maux dentaires, et ces carences, en affectant leur santé, nuisaient à leurs succès scolaires.

Son désintéressement, sa persuasion, sa persévérance eurent raison des indifférents et réchauffèrent les tièdes. Il forma parmi ses élèves des disciples auxquels il transmit son enthousiasme; ceux-ci devaient plus tard recueillir de ses mains défaillantes le flambeau de l'idéal professionnel.

L'enseignement de cette époque était encore en pleine évolution et, tant dans les facultés américaines que chez nous, dépendait moins des programmes établis et des méthodes d'enseignement que de la valeur personnelle des professeurs. C'était, pour la plupart, des autodidactes, et la disparition de l'un d'eux laissait un vide presque impossible à combler. Il y avait, certes, de bons opérateurs mais leur formation pédagogique, plus encore que leur compétence professionnelle, laissait forcément à désirer.

Les médecins canadiens-français, qui se sont toujours réclamés de l'Ecole française, faisaient un stage à Paris où ils perfectionnaient leurs connaissances médicales, mais nombre de nos aînés, ne considérant pas l'enseignement comme carrière, n'avaient pas encore appris le chemin des universités américaines.

Ceci explique en partie l'arrêt momentané chez nous de ce progrès que nous constatons tout autour de nous. Le Collège, dont l'une des fonctions est de veiller à la formation professionnelle de ses futurs membres, crut de son devoir d'attirer l'attention des autorités universitaires sur ce déplorable état de choses. Celles-ci se rendirent de bonne grâce aux arguments apportés par les officiers du Collège, et la réorganisation débuta dès le printemps de 1944.

Le Dr Ernest Charron remplaça le doyen démissionnaire; on ne pouvait faire un choix plus judicieux. Sa per-

sonnalité engageante, son dynamisme, son activité infatigable, de même que sa courtoisie envers ses collègues, en faisaient l'artisan tout désigné d'une tâche qui s'annonçait ardue. Il s'entoura de collaborateurs aussi dévoués et compétents que désintéressés.

Dès sa nomination, le nouveau doyen demandait à l'Université de lui permettre d'appeler à son aide le "Board of Education of the State of New-York". Cet organisme, qui a entre autres missions celle de classer les facultés dentaires de l'Amérique du Nord d'après la valeur de leur enseignement, fit une étude minutieuse de l'aspect pédagogique et administratif de notre faculté. Cette enquête révéla en effet qu'en ces dernières années notre enseignement était resté stationnaire, dans une profession en pleine évolution scientifique.

La mise en force des recommandations contenues dans ce rapport, ne tarda pas à obtenir pour la faculté dentaire l'équivalence aux autres facultés américaines de premier plan. Mais là ne s'arrêta pas la tâche; en ces dernières années, le Conseil de la Faculté envoyait tour à tour une cinquantaine de membres du personnel enseignant parfaire leurs études scientifiques et pédagogiques, dans les meilleures facultés américaines. Leur stage variait d'un mois ou plus à une année complète. Ces mesures énergiques et d'autres du même ordre, eurent tôt fait de redorer le blason que les années avaient quelque peu terni.

Aujourd'hui, la Faculté dentaire de l'Université de Montréal est au premier rang des grandes facultés américaines (45), par l'excellence de son enseignement, et ses gradués jouissent à l'étranger d'une réputation fort enviable. Chaque année, outre les nôtres, des candidats des provinces-soeurs et des pays étrangers, y viennent chercher une formation professionnelle dans une atmosphère où l'influence intellectuelle française se complète du sens pratique américain.

Les vastes locaux qu'on avait, au nouvel édifice de la montagne réservés à notre Ecole, se prêtaient admirablement à l'aménagement d'une faculté dentaire modèle. Ils contiennent des cliniques

largement éclairées et pouvant loger près de cent fauteuils dentaires, des amphithéâtres pour démonstrations cliniques et projections de films, des cabinets particuliers attachant aux grandes cliniques pour l'enseignement individuel, une salle de radiographie. Toutes ces salles cliniques et laboratoires ont été disposées d'après un plan stratégique en vue de faciliter le passage rapide, des patients comme des étudiants, du bureau de réception au service de diagnostic et de là aux différents services de traitement et de restauration.

Grâce à la générosité de la Fondation Kellogg, oeuvre philanthropique américaine, des cours post-scolaires sont maintenant organisés pour les diplômés. Ceci permet au gradué de rafraîchir et étendre ses connaissances quant aux méthodes de diagnostic et de traitement, qui sont sans cesse en évolution.

Les départements d'orthodontie, de chirurgie, de prothèse et d'endodontie, offrent à ce point de vue de tels avantages aux praticiens que, l'an dernier, 102 dentistes s'inscrivaient à ces cours qui s'échelonnent, par entente préalable, de deux semaines à une année académique entière. Ces cours post-scolaires, auxquels assistent des dentistes de la Virginie, du Texas, comme des provinces de l'Ouest, ont fortement contribué à répandre à l'étranger le bon renom de la Faculté de l'Université de Montréal.

L'intérêt que manifestait Aldis Bernard à la chose publique, n'est pas un fait isolé. Plusieurs de ses confrères ont suivi son exemple et se sont illustrés dans la vie publique. Le Dr Baillargeon, vers la fin du siècle dernier, et plus récemment le Dr Gustave Lemieux, après s'être distingués dans la vie politique, ont été appelés à siéger au Conseil législatif.

Le Dr Dubeau était jusqu'en 1950 l'un des doyens du Conseil municipal.

Un de nos distingués confrères mérite plus qu'une simple mention dans ce domaine. Le Dr Gaspard Fauteux, neveu d'un premier ministre et fils de dentiste, semble être appelé par ses origines à se distinguer dans cette double carrière. Né à St-Hyacinthe en 1898, il gradua en 1921

à l'Université de Montréal et pratiqua dans la métropole. Il entra très jeune dans la vie politique et y débuta par une victoire. En effet, il était élu en 1931 député de la division Sainte-Marie de Montréal, à la Législature provinciale.

En 1942, il fut appelé à représenter la même division électorale à la Chambre des Communes; il fut réélu en 1945. Peu de temps après cette dernière élection, il était élevé à la haute fonction de Président de la Chambre.

Dans l'exercice de ces fonctions, on s'est plu à rendre hommage à ses connaissances des règlements parlementaires, de même qu'à la sagesse et à l'impartialité de ses décisions. Il remplit pour le gouvernement canadien plusieurs missions diplomatiques en France et, lors de son dernier passage à Paris, la république française lui décerna l'insigne décoration de Commandeur de la Légion d'Honneur.

Le 3 octobre 1949, cette brillante carrière atteignait son apogée, lorsque l'Honorable Dr Gaspard Fauteux, fut assermenté Lieutenant-Gouverneur de la province de Québec.

Telle est, dans ses grandes lignes, l'histoire de la profession dentaire à Montréal, et de ceux qui l'ont illustrée. Son début en est modeste; elle est jalonnée d'épreuves et de revers, mais couronnée de succès. Au cours de ces années, des hommes de constance et de vision l'ont orientée vers l'ultime fonction qu'elle partage avec sa soeur aînée, la Médecine: veiller à la santé publique et tenter par tous les moyens de prévenir ou guérir les maladies de la bouche que l'on trouve à la source de tant de troubles organiques.

Ses hommes de science ont mis à point des méthodes de traitement qui éliminent la douleur, cet épouvantail qui, trop souvent dans le passé, empêchait le malade de requérir les soins qu'exigeait son état. Ils n'ont pas, il est vrai, découvert la cause de la carie dentaire, mais des recherches scientifiques se poursuivent dans nos laboratoires, qui conduiront bientôt à l'élimination de ces misères dont le genre humain semble avoir hérité avec le péché originel.

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Un axiome reconnu par les dentistes du Québec

par PAUL-E. POITRAS, D.D.S., Montréal

"Le patient souffrant d'odontalgie va chez son dentiste où une jeune fille habillée de blanc, la tête coiffée d'un bonnet, l'introduit dans une chambre, meublée avec confort, avant de le faire passer à son tour dans le cabinet d'opération." (1) En dépit de cette mise en scène bien moderne, il n'en reste pas moins vrai que la douleur est encore le plus grand problème des chirurgiens-dentistes.

Lors de la fondation de l'Association Dentaire Canadienne, à Montréal, en 1902, les dentistes autodidactes, assez nombreux dans la province, étaient heureux d'être, à leur dire, les meilleurs odontotechniciens, possédant quelques connaissances scientifiques, plusieurs orviétans et des panacées dont le secret était vendu au plus offrant, même à des étudiants enregistrés chez eux par acte notarié.

L'apprentissage de ces étudiants me rappelle une historiette.

En l'absence du dentiste, un étudiant s'avise de donner une consultation, espérant y gagner au moins un repas. Entre chez le docteur X, une paysanne pour se faire extraire quelques dents au protoxyde d'azote. "Monsieur le docteur, dit-elle, mes dents me font endurer le martyre! Mon mari pour calmer le mal me donne, sans résultat, du whisky!!! Enlevez ces dents pourries, mais enlevez-les au gaz". L'étudiant ne voulant pas anesthésier la patiente de peur d'un accident allume un bec de gaz et sans énervement arrache la dent malade au grand soulagement de notre bonne femme à qui il demande un dollar pour soins professionnels.

Les autres licenciés étaient des médecins-dentistes et des diplômés des écoles dentaires américaines qui, pour voir progresser leur profession, s'inspiraient de l'axiome de Charles Godon, un des organisateurs (1879) de l'Ecole Dentaire de Paris, un des fondateurs (1881) de la revue mensuelle, l'Odontologie, et de la "Société d'Odontologie de Paris" (1885), l'esprit dirigeant de la "Fédération Dentaire Internationale, dont la fondation

remonte à 1900. Le docteur Eudore Du-beau, de passage à Paris, assista à ses premières délibérations comme représentant de la province de Québec. Le docteur Godon disait donc: "Nulle profession peut exister, si elle ne repose pas sur le trépied éducationnel, la société, l'école et le journal."

La première société dentaire du Québec fut la "Société d'Odontotechnique" fondée en 1868, qui réussit l'incorporation de l'Association des Chirurgiens-Dentistes de la Province de Québec, le 4 avril 1869; la profession dentaire était dotée d'une existence légale. (Peu de temps après, cette société périclita et les dentistes de la région de Montréal décidèrent de fonder une nouvelle société appelée "Montréal Dental Society—Société Dentaire de Montréal"; en 1890, les membres de cette société la réorganiseront sous le nouveau nom de "Société d'Odontologie du Québec"; dans le but d'éviter certaines frictions, en 1871 les anglais se groupèrent sous le nom de "Montreal Dental Club" et les français, de plus en plus nombreux, approuvèrent le nom de "Société d'Odontologie de Montréal." Ironie du sort, en 1923, les membres plus âgés de la "Société d'Odontologie de Montréal" étant devenus moins actifs, les plus jeunes, voulant injecter du sang nouveau, redonnèrent à la société le nom français de 1871, "Société Dentaire de Montréal." De cette époque (1923) datent plusieurs sociétés régionales qui ont travaillé et travaillent toujours au bénéfice de leurs membres.

Les docteurs W. G. Beers, J. H. Bourdon, C. F. F. Trestler, les frères Stevens et Joseph Globensky (l'ancêtre Auguste François au XVIII^e siècle, fut arracheur de dents et saigneur) et autres, convaincus que l'élément français du Québec devait être instruit dans sa langue, à moins de se résigner à voir la profession dentaire

(1) Une visite chez le dentiste. L'Information médicale 18/10/1949, Paul-E. Poitras.

rérograder, aidèrent l'Association Dentaire du Québec à doter la province d'une école bilingue qui reçut ses premiers élèves, au mois d'octobre 1892; après trois sessions et un examen satisfaisant, une licence était accordée puisque les universités Laval et McGill, pour des raisons de régie interne, ne voulaient pas donner aux méritants le parchemin de docteur en chirurgie dentaire, que l'université de Toronto accordait depuis 1889.

Après trois ans de tentatives, les gouverneurs de l'Association eurent le contentement d'affilier l'école dentaire bilingue à l'université Bishop, de Lennoxville, dont l'école de Médecine était très estimée des anglais. De ce fait, tous les licenciés de la province, l'année suivante (1896), eurent le droit de se présenter aux examens en vue d'obtenir le titre de docteur en chirurgie dentaire. L'école de Médecine, ayant fermé ses portes en 1911, les étudiants de l'école dentaire, dépendant des professeurs de Bishop pour un grand nombre de cours, continuèrent leur instruction, avec les mêmes avantages, à l'université McGill.

En 1904, les docteurs Eudore Dubeau, Joseph Nolin et J. G. A. Gendreau établirent à Montréal une école dentaire française que l'université Laval, après deux ans de démarches, accepta comme école affiliée. Une bulle du Pape Benoît XV ayant créé, en 1920, l'université de Montréal, tous les biens de l'école passèrent à la nouvelle université et, en 1921, elle fut élevée au rang de faculté.

Je ne suis pas un bibliophile, cependant j'ai toujours aimé les livres au point que, si je trouve une piste intéressante, j'essaie d'en voir la fin.

Il y a quelques temps, un libraire de Montréal, bibliophile connu, me demandait des renseignements sur un dentiste, domicilié à Québec: Levi Spear Parmly, auteur du premier livre dentaire, imprimé à Québec, en 1815, dont la Bibliothèque Municipale de Montréal (collection Gagnon) possède un exemplaire. (2G. 1582-38847)

Pour y trouver le renseignement demandé, je lus la généalogie de la famille Parmly, écrite par Lawrence Parmly Brown, D.D.S., Peekskill, N.Y., publiée

dans la revue "Dental Cosmos" aux mois de mars, avril et mai 1923.

Levi Spear Parmly, né le 29 août 1790, à Braintree, Vermont, était le second d'une famille de neuf enfants. Agé de vingt-deux ans, après une dispute avec son père, il quitte le toit paternel et se rend à pied à Boston où, grâce à son talent pour la mécanique, il est embauché, comme apprenti, chez un dentiste anglais, nommé Pétrie. Pétrie, demeuré fidèle à son pays d'origine, eut à retourner en Angleterre; Levi Spear, sans ouvrage, s'engagea aussitôt chez un médecin-dentiste de grande réputation, John Randel, chez qui il continua à perfectionner son art. Après des études sérieuses, il laissa les États-Unis et voulut, en 1815, s'établir à Montréal; désorienté, il appelle à son aide le maître d'école de Braintree, son frère cadet, Eléazar, qui est connu dans la région: il avait suivi, durant deux ans, les cours d'un collège de la ville et, pendant la guerre de 1812, le major Levi Mower, propriétaire du "Canadian Courant" l'avait nommé assistant-gérant du journal. La même année, (1815) les frères Parmly déménagèrent à Québec; Levi Spear y demeura un an et Eléazar deux ans.

C'est l'époque héroïque, où les travaux dentaires consistaient à extraire les dents à l'aide de la clef de Garengéot; à posséder un jeu de curettes pour nettoyer la bouche et détartrer les dents; à séparer les dents au moyen de limes pour éviter la carie; à obturer à l'étain certaines dents gâtées; à sculpter les dents artificielles en utilisant soit l'ivoire, soit les os longs du boeuf ou du cheval; à acheter des dents humaines pour les transplanter dans d'autres mâchoires.

C'est de passage à Québec que le docteur Waite de Londres enseigna aux frères Parmly à remplacer l'étain par l'or pour les cavités.

Dans l'intention de développer l'éducation dentaire en Canada, Levi Spear Parmly publie, en 1815, en anglais, chez l'éditeur J. Neilson, côte de la Montagne à Québec, "THE SUMMUM BONUM," livre traitant pour la première fois en ce pays du soin à donner aux dents et de la chirurgie dentaire en général. Sur la page frontispiece, après le nom de l'auteur

et le titre du volume, est un cliché d'une mâchoire inférieure où sont écrits: "Dentist and Medical Electrician," No. 2 Palace Street, Quebec, August 29th. A.D. 1815. Printed by J. Neilson, Mountain Street. Le livre a soixante-et-cinq pages et est in-24.

Levi Spear Parmly aime à se déplacer. Après avoir vécu à Québec, il se rend à Philadelphie, où la première édition du livre "Guide to the Management of the Teeth" est publié. Il va à Pittsburgh, puis à la Nouvelle-Orléans y perfectionner la langue française qu'il avait commencée à étudier à Québec. Il se transporte en Europe, revient en Amérique, retourne à Londres, à La Haye, enfin à Paris, il publie, en 1857, "La Naissance et la Vie de nos Dents."

Levi Spear fut un des dentistes les plus estimés de son temps; les nombreuses éditions de ses livres et ses travaux dentaires lui apportèrent la fortune. Riche, il continua à traiter gratuitement les dents des orphelins et publia à leur bénéfice "Dental Hygiène—Human Development—La naissance et la vie de nos dents."

Il mourut, le 8 juillet 1859, à Versailles.

Antérieurement à l'ouverture de l'école dentaire de l'Association, l'apprentissage chez un praticien était un des moyens choisis par les étudiants pour se perfectionner; les plus fortunés allaient aux Etats-Unis suivre les cours des écoles américaines, où l'instruction donnée en anglais ne plaisait pas toujours à des esprits formés aux humanités latines.

Au début du siècle, le docteur Charles Godon fut utile à nos étudiants de langue française, en collaborant avec les professeurs et les chefs de clinique de l'Ecole Dentaire de Paris à la rédaction des manuels à l'usage des chirurgiens-dentistes: ces volumes furent édités à la librairie J. B. Baillière et fils, 19 rue Hautefeuille, à Paris. Voici quelques titres et le nom des auteurs: "La pratique des maladies de la bouche et des dents dans les hôpitaux"—Paul Leford; "Dentisterie opératoire"—Charles Godon et Henri Masson; "Pathologie des dents et de la bouche"—Léon Frey et G. Le Merle; "Formulaire dentaire"—H.

Thomson; "Clinique de prothèse dentaire"—P. Martinier; "Thérapeutique de la bouche et des dents"—docteur Maurice Roy; "Notions générales d'anatomie, d'histologie, de physiologie"—docteur Paul Marié; "Dictionnaire dentaire"—Jean Château.

Le laboratoire commercial, Pure Gold Crown Company, aujourd'hui disparu, installé à 14 Phillips Square, à Montréal, édita, en 1903, en anglais et en français, "Taking Impression of the Mouth, Taking the Bite—Comment prendre l'impression de la bouche." Ce livre d'une cinquantaine de pages, illustré, explique succinctement comment les meilleurs praticiens prennent les empreintes et enregistrent l'articulation.

Le docteur Joseph Nolin fut un des rares dentistes à cultiver toute sa vie les Muses. Dentiste, poète, professeur et artiste, il croyait que son enseignement serait suffisant à assurer la permanence de son oeuvre. Ce fut une erreur; seuls ses élèves ont gardé un vague souvenir de ses leçons. Cependant à la suite d'un travail rédigé en anglais, et lu devant l'American Institute of Dental Pedagogies à Pittsburgh, ses amis lui demandèrent de publier aux éditions "Publication d'Odonologie" à Paris, la traduction de cette conférence; "L'enseignement de l'art dans les écoles dentaires." C'était un exposé de la nécessité d'enseigner le dessin et le modelage aux futurs dentistes et de donner des cours d'esthétique faciale au double point de vue prothétique et orthopédique. Le travail fut exécuté le 30 septembre, 1913.

Le docteur Alcide Larose, retiré dans les Laurentides, au village des Seize Iles, ancien professeur d'hygiène dentaire à l'école dentaire Laval, compila, en 1917, en un volume, ses cours. Malheureusement je n'ai pas trouvé son livre que j'ai prêté ou perdu.

Officier du Canadian Grenadier Guards de Montréal, le docteur Frédéric Malcolm Wells, D.D.S., engagé volontaire pendant la guerre de 1914-1918, fut attaché à l'Institut Lister de Londres, comme dentiste, pour y trouver des matériaux nécessaires à la lutte contre la carie dentaire. Libéré des forces armées,

il publia en 1926, "Sound Teeth in a Sound Body." Livre illustré, dédié à tous les parents souhaitant que leurs enfants aient une bonne denture. Il explique les vitamines, recommande certains régimes, donne les causes du scorbut et du rachitisme, parle des infections buccales, des pâtes dentifrices, le tout suivi d'un supplément classant les aliments selon leur valeur nutritive.

Le docteur Philippe Hamel de Québec, en 1945, publia un tiré-à-part avec une pagination spéciale d'un travail présenté à Boston, le 21 mars 1945, devant la Société dentaire franco-américaine et édité par tranches dans le Journal de l'Association Dentaire Canadienne, (numéros de juin, août et septembre 1945) sur la carie dentaire, ses causes et sa prévention.

Le docteur Hamel démontre la théorie microbienne de Miller devenue l'axiome de ses partisans "une dent nette ne se carie pas", sans y croire lui-même. Elle ne saurait expliquer, à elle seule, que la carie se manifeste chez certains individus et jamais chez d'autres. Il fait connaître les vitamines A, B, C et D, les hormones, le calcium, la salive; il finit en donnant des conseils propres à prévenir la carie dentaire; il touche à l'alimentation, à la médication calcique et au fluor.

Le docteur Charles-Auguste Durand, en 1947, publia "Comment prévenir la carie dentaire," un volume illustré de cent cinquante pages d'éducation dentaire destiné à enseigner aux mamans les précautions à prendre avant la naissance du bébé pour faciliter sa dentition, le régime à suivre après sa naissance pour lui assurer une belle denture, tous les préceptes d'hygiène à observer en vue de conserver les dents en santé. Il marque la lutte entreprise contre l'odontalgie dont la race humaine est affligée par la connaissance des causes et de l'évolution de la carie dentaire, de l'influence de l'alimentation, de la nécessité de visiter le dentiste, une ou deux fois par année, de beaucoup d'autres conseils trop longs à énumérer.

Les mœurs changent, le confort se développe, la science fait des progrès immenses et la nature humaine demeure toujours la même. Nous avons tous connu

des idéalistes travaillant à rendre les hommes meilleurs. Quelques dentistes aussi ont voulu que leurs confrères soient plus habiles à soulager et à guérir l'odontalgie par une connaissance plus grande des maladies de la bouche et des dents, de l'anatomie et de la physiologie dentaires. Le docteur William George Beers, dès juin 1868, à Montréal, publiait le "Canada Journal of Dental Science"; après une interruption de dix ans, il rédigeait une nouvelle revue trimestrielle, le "Dominion Dental Journal" (1889), qui devint plus tard bimestrielle enfin mensuelle. Il en fut le rédacteur jusqu'à sa mort, le 26 décembre 1900. Le docteur E. A. Webster lui succéda jusqu'en janvier 1935, quand l'Association Dentaire Canadienne publia en anglais et en français le "Journal de l'Association Dentaire Canadienne" à la place du "Dominion Dental Journal," avec comme rédacteur anglais, le docteur H. Garvin, et comme rédacteur français, le docteur Philippe Hamel. Le docteur Alcide Thibault succéda au docteur Hamel et en 1946, le docteur Gérard de Montigny se vit confier la direction de la section française.

Les docteurs Paul-E. Poitras et Honoré Thibault, tous deux directeurs de la Société d'Odontologie de Montréal, en 1915, décidèrent de publier une revue dentaire française dans le Québec. Le premier s'occuperait de la finance et l'autre verrait à la rédaction. Quatre prospectus (décembre 1915, février, mars et avril 1916), connus sous le nom de "La Société d'Odontologie," furent publiés pour sonder l'opinion des confrères; les pamphlets ayant été bien accueillis, au mois de mai 1916, le premier journal dentaire de langue française, en Amérique, connu sous le nom de "Revue Dentaire Canadienne" fut publié.

Les propriétaires, convaincus de l'utilité d'un journal, prirent leur tâche à coeur; ils sollicitèrent l'appui de leurs amis et l'indulgence des indifférents (2).

Après la conscription, la publication de la Revue fut suspendue en décembre 1917; par la suite, le traité de Versailles signé, et les affaires stabilisées, le

(2) Revue Dentaire Canadienne Volume 1, page 1.

troisième volume parut, en janvier 1920. L'enthousiasme seul n'était pas suffisant; il fallait de la volonté et du travail pour publier les dix-sept volumes de la *Revue Dentaire Canadienne*, dont l'utilité fut de grouper les confrères de langue française du Québec, de les faire connaître à l'étranger, de relever le niveau professionnel et d'augmenter les connaissances scientifiques d'un chacun. La *Revue Dentaire Canadienne*, en décembre 1934, s'effaçait devant le *Journal de l'Association Dentaire Canadienne* pour permettre aux dentistes canadiens, anglais et français, d'avoir une revue bien à eux, continuant le sillon tracé par les deux journaux qui disparaissaient.

L'âge nous rend moins orgueilleux de nos connaissances, puisque notre patrimoine n'a pu être consolidé que grâce aux divers journaux dentaires, qui nous ont permis d'enrichir notre cerveau par le

travail accumulé de nos aînés.

J'admets que le progrès est l'oeuvre du cerveau; il est rendu possible par la création de découvertes faites avant nous, pour nous; avons-nous jamais pensé que notre supériorité réside dans cette faculté de transmettre de générations en générations les inventions utiles consignées dans le livre et le journal? Les imprimés ont permis de mettre un commun les trouvailles de chacun, de les transmettre à ceux qui suivent. Le point d'arrivée des pionniers a été le point de départ de leurs successeurs. De ce patrimoine, nous tirons vanité, sans penser que cette supériorité nous la devons aux plus vieux qui ont écrit leurs expériences et leurs tentatives avec l'espoir de voir les descendants en bénéficier. Les dentistes canadiens doivent continuer à améliorer les travaux des anciens, s'ils veulent faire avancer leur profession. 2043 rue Saint-Denis

L'hygiène dentaire dans la province de Québec

par GABRIEL LORD, D.D.S., Montréal,

Président de la Ligue d'Hygiène dentaire de la province de Québec.

Le souci constant du Collège des Chirurgiens-Dentistes de la Province de Québec a été depuis bien longtemps l'enseignement et la propagande de l'hygiène dentaire, aussi bien dans les villes que dans les campagnes. Depuis le début du siècle, on peut dire que presque chaque année les Gouverneurs du Collège ont émis des vœux dans ce sens et se sont préoccupés de ce problème si important.

Malheureusement, l'oeuvre d'éducation si nécessaire dans ce domaine ne fait réellement que commencer.

Il semble bien que la première manifestation publique en matière d'hygiène dentaire, dans la province de Québec ait été le travail présenté par le Dr Eudore Dubeau, alors directeur de l'Ecole de Chirurgie Dentaire de l'Université Laval de Montréal, aux sections d'hygiène et de chirurgie dentaires, lors du deuxième

Congrès des Médecins de langue française de l'Amérique du Nord, en 1906. Ce rapport, si intéressant fut-il, ne connaît pas de suites pratiques.

On note ensuite certaines brèves campagnes et manifestations en faveur de l'hygiène dentaire, pleines de mérites, mais sans lendemains; en 1913, à Montréal, par les Docteurs Deguise et Nolin; en 1915, par le Dr Gustave Lemieux, du Service de Santé de la Cité de Montréal, dans les écoles de la ville; en 1922, à Québec, par les Docteurs Lantier, Reid et Viger Plamondon; en 1925, à Montréal, aux Galeries Baillargeon. D'autres encore ont certainement fait preuve de bonne volonté dans ce domaine, mais leurs efforts demeurèrent stériles.

Il faut cependant relever, à l'honneur du Collège des Chirurgiens-Dentistes de la Province, la formation, le 16 décembre 1922, d'un Comité de Propagande Den-

taire, sous la présidence du Dr Armand Massicotte. Le Bureau des Gouverneurs souscrivit à ce Comité la somme de douze cents dollars, provenant en grande partie des jetons de présence des Gouverneurs aux assemblées mensuelles, qu'ils avaient généreusement abandonnés. Le Registraire, le Dr Armand Massicotte, le Secrétaire, le Dr Denis Forest, le Trésorier, le Dr J. G. Gardner, souscrivirent également d'assez importants montants au bénéfice de ce Comité.

Vers cette même année, une Commission d'Hygiène Dentaire fut fondée à la Commission des Ecoles Catholiques de Montréal, sous la présidence du Dr Nolin.

En 1938, car il faut aller jusqu'à cette date, la Commission des Ecoles Catholiques de Montréal réorganisa son Service d'Hygiène Dentaire et en confia la direction au Dr G. Plamondon, qui était assisté d'un certain nombre de dentistes de Montréal.

Cette Commission Dentaire des Ecoles de notre ville fut remplacée peu après par une organisation nouvelle. La santé de nos enfants, dans tous les domaines, fut confiée à la surveillance et aux soins du Service de Santé de la Cité de Montréal. Ce service renferme une section dentaire, qui comprend aujourd'hui, avec quatorze cliniques dentaires municipales gratuites pour la population écolière et une clinique spéciale d'Orthodontie sous la direction du Dr Paul Geoffrion, un personnel de quinze chirurgiens-dentistes employés à temps complet ou à temps partiel.

En 1942, le Ministère de la Santé de la Province de Québec créait une division d'Hygiène Dentaire et en confiait la direction au Dr Antonio Rény. Cette fonction est aujourd'hui remplie par le Dr L. J. Bonneau, qui doit s'occuper du service dentaire dans les cinquante-huit Unités Sanitaires existant dans la Province, coordonner les efforts et développer les services des chirurgiens-dentistes qui en ont charge, et veiller lui-même à la diffusion dans tous les milieux, principalement ruraux, de l'hygiène dentaire et de ses principes essentiels.

Mais il faut arriver en 1936 pour trouver réellement une réalisation, dans le

domaine de l'enseignement de l'hygiène dentaire. Au début du mois de mars de cette année, une trentaine d'articles, rédigés par le Dr G. A. Séguin, M.D., à la demande du Collège des Chirurgiens-Dentistes de la Province de Québec, étaient publiés dans le journal, *La Presse*, à Montréal. Il y eut aussi, à cette époque, une série de causeries hebdomadaires à Radio-Canada, du 1er mai au 26 juin 1936, puis du 4 au 25 septembre 1936.

Dans le cours de l'année il y eut également à travers la province des mouvements isolés en faveur de l'hygiène dentaire sous forme de conférences, de journées dentaires, etc.

Enfin, après nombre de campagnes passagères, à la fin de l'année 1936, le Collège des Chirurgiens-Dentistes de la Province de Québec créait officiellement une Commission d'Hygiène Dentaire. C'était un commencement qui, pour la première fois, devait, un peu plus tard, avoir des suites heureuses et durables.

En 1938, une société, la Société d'Hygiène Dentaire de la Province de Québec, obtenait des lettres patentes. Mais cette Société n'a jamais rien accompli et n'a même jamais fonctionné.

En 1940, le Bureau des Gouverneurs votait un montant de \$500. afin de permettre aux Docteurs Jean Brault et Armand Fortier, respectivement président et secrétaire de la Commission d'Hygiène du Collège, d'aller aux Etats-Unis, surtout à New-York, et d'y faire enquête sur le problème d'hygiène dentaire.

C'est l'année 1942 qui marque le point de départ de réalisations importantes de l'enseignement de l'hygiène dentaire dans la province de Québec.

En 1942, en effet, la Commission d'Hygiène Dentaire du Collège des Chirurgiens-Dentistes obtenait un octroi de \$1000. du Ministère de la Santé de la Province de Québec. Cet octroi se renouvela au cours des années suivantes et, grâce à lui, et grâce aussi aux subventions annuelles du Collège lui-même, la Commission put fonctionner et améliorer de plus en plus ses services jusqu'en 1945, sans aucune interruption dans son travail, alors qu'elle devenait la Ligue d'Hygiène Dentaire de la Province de

Québec Incorporée. Depuis cette incorporation, en mars 1945, jusqu'à nos jours, la Ligue d'Hygiène Dentaire de la Province de Québec n'a pas un seul instant interrompu ses activités, les augmentant même dans toute la limite de ses possibilités financières, et les étendant, autant qu'elle le pouvait et qu'elle le peut encore, dans tout Montréal et en dehors de Montréal, dans la Province toute entière.

Depuis sa création, en 1945, la Ligue donne, chaque semaine, au poste CKAC de la Presse, deux causeries radiophoniques sous le nom de Cliniques Dentaires. Ces causeries s'adressent surtout aux femmes enceintes, aux jeunes mamans, aux mères de famille.

Chaque semaine également, sans aucune interruption depuis 1942, la Commission d'Hygiène Dentaire et la Ligue ont publié et publie toujours dans cent vingt-cinq journaux de langue française de la Province de Québec de courts articles d'éducation et de propagande dentaires, sous la forme de "Réponses à de fréquentes questions" et sous le titre général de "La Santé des Dents".

A la fin de chaque causerie radiophonique et de chaque article hebdomadaire, la Ligue offre gratuitement de répondre à toutes les questions, et d'envoyer des brochures traitant d'hygiène alimentaire et dentaire; ces pamphlets s'adressent surtout aux jeunes mamans, aux futures mamans, et aux mères de famille. Ils traitent des soins à donner aux dents temporaires, des précautions à prendre lors de l'éruption des dents permanentes, et des soins à donner dès l'enfance et durant toute l'adolescence. Par une entente avec le Ministère Fédéral du Bien-Etre Social et de la Santé Nationale, la Ligue distribue également, aux futures et aux très jeunes mamans, l'ouvrage du Dr Ernest Couture, chef du Service de l'Hygiène Maternelle et Infantile du Ministère Fédéral de la Santé Nationale, "La Mère Canadienne et son Enfant".

La Ligue reçoit ainsi plus de dix mille lettres par an et répond à toutes les demandes qui lui sont adressées.

En dehors des causeries à la radio, des articles hebdomadaires dans les journaux, la Ligue, depuis neuf ans, en collabora-

tion avec le Service de Santé de la Cité de Montréal, mène une campagne de propagande et d'éducation alimentaire et dentaire dans toutes les écoles, les couvents, les collèges, les pensionnats de Montréal, au nombre de plus de trois cents, au rythme de trois écoles par semaine, durant toute l'année scolaire. Ainsi, chaque année, plus de cinquante mille enfants et tout le personnel enseignant, religieux et laïque de cent maisons d'enseignement sont atteints.

Enfin, la Ligue, en moyenne deux fois par mois, durant la belle saison, en collaboration avec la Société Canadienne de la Croix-Rouge de la Province de Québec, mais à ses propres frais, donne des conférences, illustrées de films, sur l'hygiène alimentaire et dentaire, dans les sections de Cours de Soins à Domicile de la Croix-Rouge, dans les comtés des alentours de Montréal, dans un rayon de cent milles.

Dans ce domaine de l'éducation et de la propagande dentaires, existent également, à côté de la Ligue d'Hygiène Dentaire de la Province, et des cinquante-huit Unités Sanitaires possédant un service dentaire, réparties dans tous les comtés de la Province, deux organismes, que préside avec distinction le Dr Conrad Archambault, le "Dental Public Health Committee" et "le Comité Consultatif de l'Enquête sur les Services de Santé". Ces deux organismes, nouvellement fondés, devraient accomplir un fructueux et bien-faisant travail au cours des années à venir.

Par les octrois et subventions qu'ils accordent à ces divers organismes, le Ministère Provincial de la Santé et le Collège des Chirurgiens-Dentistes de la Province témoignent l'un et l'autre de leur volonté bien arrêtée de tout mettre en oeuvre pour améliorer et rétablir dans le Québec la santé dentaire du plus grand nombre des nôtres. A la Faculté de Chirurgie-Dentaire de l'Université de Montréal, parmi les Gouverneurs du Collège des Chirurgiens-Dentistes, parmi les chirurgiens-dentistes de toute la Province de Québec, on peut affirmer qu'il existe actuellement une pléiade de propagandistes aussi dévoués que désintéressés de l'hygiène dentaire.

Histoire des Sociétés dentaires de la province de Québec

par CONRAD GODIN, D.D.S., Trois-Rivières

Le moyen idéal pour les membres d'une même profession d'échanger leurs connaissances scientifiques et de fortifier leur idéal est de se grouper en associations ou en sociétés. Il est inutile de redonner les raisons d'être des groupements d'hommes ayant reçu la même formation et exécutant les mêmes services au bénéfice de la population. Des voix plus autorisées que la mienne ont prouvé et exposent encore les avantages que procure à tout professionnel l'adhésion à une agglomération officielle et active composée de confrères, qui partagent ses préoccupations, ses labeurs et ses consolations. Ceux qui participent aux activités de leur "société" locale ou de leur association provinciale ou nationale savent tous les privilèges que leur a donnés la fréquentation de leurs frères d'armes: connaissances scientifiques, mises au point de nouvelles techniques, découvertes de nouveaux instruments, de médicaments inédits ou de produits neufs, conseils, sympathie, encouragement, etc. Je pourrais écrire des pages pour raconter ce que m'a valu l'assistance à des congrès et la participation à des réunions plus intimes de dentistes. Des primaires, comme des ouvriers, on a reconnu le bien-fondé d'organisations réunissant sous l'égide d'un club ou d'un comité paritaire les individus d'un même métier, exerçant la même occupation. Il convient donc qu'une classe d'homme instruits reconnaisse d'avantage la nécessité de se joindre les uns aux autres pour l'échange d'opinions et la solution de leurs problèmes communs.

Dans cet article, qui m'a été demandé par le Comité de Rédaction de la section française du Journal de l'Association Dentaire Canadienne, à l'occasion de la célébration du cinquantième anniversaire de la fondation de l'Association, j'ai tenté une esquisse de l'histoire des sociétés dentaires de la province de Québec.

Comme il eût été trop long de rédiger un résumé des activités de chacune des sociétés qui a été fondé dans la province, depuis 1868 jusqu'à nos jours, j'ai cru qu'un tableau synoptique permettrait de mettre en parallèle leur existence éphémère ou durable.

Grâce à la collaboration de plusieurs confrères, qui ont conservé au milieu de leurs initiatives nombreuses et captivantes une place pour la petite histoire, j'ai pu rassembler ici et là des fragments précieux, qui m'ont permis de former le tableau ci-joint, telle une reproduction d'image reconstituée à l'aide des nombreux éléments épars et divers d'un immense casse-tête (jig saw puzzle).

Les renseignements réunis dans cette fresque sont aussi exacts que possible. Je tiens cependant à inviter mes lecteurs à me fournir tous les renseignements, qui pourraient rendre ma compilation plus proche de la vérité; je recevrai avec plaisir toutes les précisions qu'ils voudront bien me donner.

Et je suis heureux que les dirigeants de l'Association Dentaire Canadienne, plus spécialement les membres du Comité des Relations extérieures, aient donné l'occasion à ceux qui s'intéressent à l'histoire de la profession dentaire de compiler leurs notes et de servir ainsi les chercheurs de l'avenir, qui voudraient écrire une histoire complète du groupement dentaire canadien.

Notre profession est encore jeune; mais il fait bon quand même de se retourner en arrière pour apprécier l'oeuvre de nos devanciers pour nous encourager à marcher de l'avant et à faire progresser notre chère profession pour le plus grand bien de ses membres ou pour celui de la population que nous sommes appelés à servir.

Félicitations à notre Association pour son jubilé d'or! *Ad multos annos!*

1371 rue Hart

LES SOCIÉTÉS DENTAIRES DE

Noms	Date de Fondation	Siège	But	Fondateurs
Société d'odontotechnique de la Province de Québec	29 oct. 1868	Montréal	Scientifique Intérêt professionnel	Dr Aldis Bernard Dr J. B. Leblanc Dr J. A. Bazin
Société Dentaire de Montréal (Première du nom)	10 fév. 1871	Montréal	Scientifique Intérêt Professionnel	Dr. W. J. Beers Dr J. B. Leblanc
Société d'Odontologie de Québec	1890	Montréal	Intérêt professionnel	Dr W. J. Beers, Dr S. Globensky Dr C. F. F. Tresler, Dr J. H. Bourdon Dr. J. B. Leblanc
Société d'Odontologie de Montréal	1897	Montréal	Intérêt professionnel	Fondée en 1897 Réorganisée en 1913
Société d'Odontologie Canadienne-Française	16 janvier 1906	Québec	Intérêt professionnel	Dr Ed. Casgrain, Dr L. N. Lemieux Dr S. Gaudreau Dr J. Paradis
Société Dentaire des Trois-Rivières	16 mai 1922	Trois-Rivières	Scientifique Intérêt professionnel, social	Sec: Dr F. Houde Prés: Dr. E. Bourgeois Dr P. Freynet E. Buisson H. Beland H. Robert G. Landry
Société Dentaire de Montréal (Deuxième du nom)	12 nov. 1924	Montréal	Scientifique Intérêt professionnel, et social	Prés: Dr J. P. Lantier V.-P. Dr J. A. Pinault Sec: Dr P. Geoffrion Trés: Dr J. A. Thibaudreau
Société de Stomatologie de Québec	12 nov. 1924	Québec	Scientifique Intérêt professionnel et social	Dr E. Beaulieu Dr E. Bourdon Dr J. Dallaire Dr S. Gaudreau Dr P. Hamel Dr W. Leahy Dr H. Lebon Dr E. Barras Dr E. Beaulieu etc.
Association des Dentistes de langue Française de l'Amérique du Nord	17 oct. 1928	Montréal	Scientifique	Dr P. Geoffrion Dr J. H. Pinault Dr. C. Archambault Dr J. A. Renaud Dr J. Nolin Dr S. Gaudreau Dr E. Dubeau Dr G. S. Kent Dr P.-E. Poitras
Société Dentaire de St-Hyacinthe	19 nov. 1938	St-Hyacinthe	Scientifique Intérêt professionnel et social	Prés: Dr A. Bédard V.-P: Dr L. Deslauriers Sec: Dr Y. Lafleur Trés: Dr H. Breton
Société Dentaire de la Beauce	mai 1940	St-Georges de Beauce St-Marie de Beauce	Intérêt professionnel, scientifique, social	Dr H. Reny Dr A. Reny Dr L. P. Gagnon Dr. P. E. Thibodeau Dr J. A. Jolicoeur
Société Dentaire des Cantons de l'Est	10 mai 1941	Sherbrooke	Intérêt professionnel, scientifique, social	Prés: Dr V. Olivier Sec: Dr J. Giroux
Société Odontologique Canadienne	8 mai 1944	Montréal	Scientifique Intérêt professionnel et social	A. Plessis-Belair-Prés., C. Plamondon V.-P.E. Malo—Sec., R. Lussier Trés., Claude de Grandmont— Cons., G. Plourde—L. Dufresne— V. Plamondon—G. Dedis—C. Godin—P. Frigon
Société Dentaire du Saguenay	7 oct. 1944	Chicoutimi	Scientifique Intérêt professionnel et social	Prés. Dr P. Coutu V.-P. Dr J. A. Desbiens Sec.-Trés. Dr C. E. Massicotte Ass.-Sec. Dr P. Gagnon
Société Dentaire du district de Beauharnois	13 fév. 1943	Valleyfield	Intérêt professionnel scientifique et hygiène dentaire populaire	Dr W. G. McCabe Drs A. Clairmont. Irénee Frappier Paul E. Prigent réorganisée le 23 avril 1950 par Euclide Caza (Huntingdon) et W. S. McLaren (Ormstown) Gilles Amyst J. A. P. Prigent Dolphée Perron
Société Dentaire de la Rive-Sud	4 mai 1946	Les villes de la Rive-Sud alternativement 1946 Rivière-du-Loup	Scientifique Intérêt professionnel et social	Prés. Dr G. Plourde Dr H. Provencher Dr P. Goulet Dr G. Laflamme
Société Médico-dentaire de la Rive-Sud	mai 1947	Les villes de la Rive-Sud Lévis—Montmagny St-Gs-de-Beauce Rivière-du-Loup	Scientifique Intérêt professionnel social	Prés. Dr P. Goulet—A. Farand, M.D. V.-P. Dr H. Lemieux—M. Roy, M.D. Sec. Dr G. Laflamme—J. Dube, M.D.
L'Association des Dentistes de Montréal	10 déc. 1947	Montréal	Intérêt professionnel	Dr G. Dupras Dr R. Poupart Dr P. E. Joly Dr C. A. Larue Dr H. Brouillet
Société Dentaire de Joliette	12 nov. 1948	Joliette	Scientifique Intérêt professionnel et social	Prés. Dr L. L. Benny V.-P. Dr P. E. Perrault Sec.; P. Dionne Trés. Dr Ed. Gervais
Société Dentaire des Laurentides	3 juil. 1949	St-Jérôme	Scientifique Intérêt professionnel et social	Prés. Dr C. A. Contant—Dir. P. A. Liboiron J Sec.-Trés. J. Page V.-P. J. A. Lacasse Directeur Directeur P. Honoraire D. Dumais, J. Larue, L. A. Dionne
Société Dentaire Richelieu-St-François	nov. 1949	St-Hyacinthe Drummondville Sorel-St-Jean Granby Sherbrooke	Intérêt professionnel social	Dr. L. Picard

LANGUE FRANÇAISE AU CANADA

organisée par	Réunions	Territoire	Evénements Principaux	Durée	
Dr A. Bernard	mensuelles puis bi-mensuelles	Montréal et Québec	Discussions au sujet de montres (show-cases) Société bilingue	1868 à 1871	
Dr W. J. Beers Dr J. B. Leblanc	à des dates indéterminées	Montréal	Société bilingue	1871 à 1875	
Dr J. H. Bourdon Dr J. B. Leblanc Dr W. G. Beers	à une communica- tion d'intérêt général	Montréal	Société bilingue	7 ans pour être divisée	
Dr J. H. Bourdon Dr J. B. Leblanc	mensuelle	Montréal	Premier cinéma scientifique Banquets et conférences	Jusqu'en 1920	
Dr S. Gaudreau	annuelle	Québec et District	Banquet le 6 janvier 1906	un an	
Dr F. Houde Dr E. Bourgeois	6 fois l'an	Louiseville-Nicolet-Latuque Trois-Rivières Shawinigan-Grand-Mère	6e Congrès des Dentistes de langue française Banquets annuels (en novembre), 8 juin 1940 Partie de sucre annuelle—Partie d'huîtres annuelle	1922 à nos jours	
P. Geoffrion J. Lantier J. A. Pinault	mensuelles sept. à mai	Montréal	Participe aux congrès des Dentistes de langue française de l'Amérique du Nord tenus à Montréal. Parties d'huîtres annuel- les Journées de golf annuelles	1924 à nos jours	
Dr E. Beaulieu Dr E. Bourdon	mensuelles sept. à mai	Québec et District de Québec	Malbaie 1949—Congrès de l'Ass. Dentaire Canadienne 1941—7e Congrès des Dentistes de langue française de l'Amérique du Nord —25e Anniversaire 29 oct. 1949 Dr E. Bourdon, Secrétaire 24 ans 1924-48	1924 à nos jours	
Les anciens de la Faculté Dentaire de l'Université de Montréal	novembre à juin pour l'organisation du Congrès	Amérique du Nord	7 grand congrès { 5 à Montréal 1 aux Trois-Rivières 1 à Québec	inactive depuis 1945	
Dr L. Deslauriers Dr Y. Lafleur	4 fois l'an	St-Hyacinthe et les environs	Semaine d'hygiène dentaire Fondation société dentaire Richelieu-St-François	1938 à 1945 1945 à aujourd'hui	
Dr H. Reny Dr A. Reny	4 fois l'an	Région de la Beauce	Fait partie de la Société Dentaire de la Rive-Sud		
Dr P. Hamel Dr J. Giroux	4 fois l'an	Sherbrooke et les environs	Conférences scientifiques Réunions sociales à Sherbrooke et alentours	1941 à nos jours	
Dr R. E. Lussier G. Plamondon E. Malo C. deGrandmont	4 fois l'an	St-Hyacinthe Montréal Sherbrooke-Québec- Chicoutimi-Trois-Rivières	Fondation Société Dentaire Saguenay Société Dentaire Joliette Société Dentaire Laurentides	1944 à nos jours	
R. E. Lussier A. Plessis-Belair G. Plamondon J. E. Malo—V. Plamondon pour la Société Odontologique Canadienne	4 fois l'an	Saguenay et Lac St-Jean	Réunion d'automne à Chicoutimi 1947 à Roberval	1944 à nos jours	
Dr W. G. McCabe Dr A. McCabe Dr E. Lussier Société Odontologique Canadienne	2 fois l'an	Valleyfield et district Beauharnois	2 réunions à Valleyfield	1945 à 1946 1951-	
G. Plourde, L'Islet H. Provencher, R. du Loup P. Goulet, Lévis G. Laffamme, Lévis	2 fois l'an	Rive-Sud du St-Laurent (de Lotbinière à Gaspé)	Réunion à Lévis 1950 Réunion à Rivière-du-Loup	4 mai 1946 à sept. 1947	
Dr G. Plourde Dr P. Goulet Dr A. Fafard, M.D.	2 fois l'an	Rive-Sud du St-Laurent (de Lotbinière à Gaspé)	Lévis en 1947 Journée d'étude à St-Gs-de-Beauce 1948 Journée d'étude à Montmagny 1949 Journée d'étude à R.-du-Loup 1950 Journée d'étude à Plessisville 1951	Septembre 1947 à nos jours	
G. Dupras A. Hay	4 fois l'an	Montréal	Elections au Collège en 1948	1947 à nos jours	
C. Godin R. E. Lussier A. P. Belair pour la Société Odontologique Canadienne	4 fois l'an	Comtés Joliette Berthier Maskinonge L'assomption	Fondation 2 Banquets	à nos jours	
C. Godin R. E. Lussier A. P. Belair pour la Société Odontologique Canadienne	4 fois l'an	St-Jérôme Ste-Agathe St-Jovite Mt-Rolland Mt-Laurier Grenville	St-Eustache Ste-Adèle Ste-Thérèse Lachute Brownsburg	Fondation Souper mixte Nov. 1949	1949 à nos jours
Dr L. Picard	4 fois l'an	Drummondville St-Hyacinthe Sorel St-Jean Granby Sherbrooke	Réunions d'une ville à l'autre	1949 à nos jours	

Les débuts de la profession à Montréal

par EUDORE DUBEAU, D.D.S., Montréal

AVANT-PROPOS: Le Dr Dubeau, ancien doyen de la faculté de Chirurgie-Dentaire de l'Université de Montréal, à bien voulu, à notre demande, répondre à des questions qui traitent du début de la profession dentaire à Montréal. Comme la période d'activité du Dr Dubeau couvre une période de quarante ans, nous avons voulu donner à cet article un caractère d'interview.—Comité de Rédaction.

1) *A la suite de quelles circonstances l'Association Dentaire Canadienne fut-elle fondée, en 1902, à Montréal?*

1) Les dentistes du Canada avaient exprimé fréquemment le désir d'unir les dentistes de toutes les provinces du Canada en association, comme celle nous avons maintenant, mais les dentistes du Nouveau-Brunswick, de la Nouvelle-Ecosse et de l'Île du Prince-Edouard étaient restés indifférents.

Le Dr Albert Webster, de Toronto, qui dirigeait la "Revue Dentaire d'Ontario" tout en s'occupant de l'enseignement dentaire, était mon grand ami et venait me visiter fréquemment. Ayant appris que ces trois provinces mentionnées ci-haut auraient un Congrès à Charlottetown, Île du Prince-Edouard, en juillet, il vint à Montréal passer une semaine dans ma famille, et nous primes la décision d'aller les rencontrer à nos frais. Nous fûmes très bien reçus et restâmes avec eux deux semaines. Revenus avec une décision-unanime des trois provinces et après avoir consulté nos provinces respectives, il fut décidé que la première réunion de l'A.D.C. aurait lieu au début de septembre 1902, à Montréal.

Le Dr Wilmott de Toronto fut choisi Vice-Président, le Dr S. A. Stevenson de Montréal, Président, moi comme Secrétaire et le Dr Webster, Trésorier.

À la fin du Congrès, il fut décidé que la prochaine réunion aurait lieu à Toronto et le Dr Wilmott fut élu Président.

2) *A la suite de quelles circonstances le Dr Nolin, le Dr Gendreau, et vous-même avez-vous décidé de fonder l'école dentaire à Montréal?*

Étant un ex-élève du Séminaire de Québec, que j'avais laissé après ma rhétorique pour finir mon cours chez les Jésuites à Montréal où j'ai obtenu mon baccalauréat, j'avais demandé à Mgr Mathieu, plus tard évêque de Régina, mais à cette époque Recteur de l'Université Laval à Québec et ancien ami de mon père, s'il consentirait à affilier une Ecole Dentaire à Montréal, si j'obtenais une loi à cet effet de Sir Lomer Gouin, qui était mon patient. C'est alors que, avec le Dr Joseph Nolin et le Dr J. G. A. Gendreau, j'ai obtenu une charte de la Législature de Québec, et tel que me l'avait promis Mgr Mathieu. Elle fut affiliée en 1904 à l'Université Laval, à Montréal.

Mgr Dauth, qui était Recteur de l'Université Laval, à Montréal, nous a logé dans l'Hospice St-Joseph, coin St-Hubert et de Montigny.

Nous n'avons reçu aucune aide pécuniaire tout le temps de notre occupation de l'Hospice, mais je ne saurais vous dire de quelle façon Mgr Dauth l'a financé.

3) *A la suite de quelles circonstances le Conseil a-t-il décidé de construire l'école dentaire? Avez-vous reçu un octroi de la ville ou du gouvernement provincial? Qui était l'architecte? Quel personnage du gouvernement vous a-t-il le plus aidé à réaliser ce projet?*

L'endroit étant trop restreint, nous avons songé à trouver de l'aide financière pour construire l'Ecole Dentaire, coin St-Hubert et de Montigny.

L'architecte a été un architecte bien connu alors, M. Alphonse Monette. Nous n'avons reçu aucun octroi de la Ville, mais je puis vous dire que la finance a été faite par Mgr Dauth et Sir Lomer Gouin qui nous a grandement aidé.

Je pourrais vous donner quelques détails additionnels et personnels.

4) *Quelles qualifications étaient exigées des candidats qui désiraient commencer leurs études en chirurgie dentaire, à la première école dentaire?*

Comme vous le savez, les dentistes de la province de Québec ont été incorporés en 1869 par la Législature de Québec, et ils ont formé une Association qui a décidé d'un examen pour l'admission à l'étude de la profession dentaire et nous avons exigé de chacun des candidats à l'étude, la présentation d'un certificat des examinateurs du Bureau choisi par la Profession.

5) *A la suite de quelles circonstances l'Association des dentistes (Collège des Chirugiens-Dentistes) a-t-elle été organisée?*

Je considère que le Collège des Chirugiens-Dentistes a été organisé pour élever le niveau de la profession. À ce moment-là, à l'exception d'une année à la faculté de Médecine, les futurs dentistes devaient se placer comme assistant, chez un dentiste, dont le compétence, fréquemment, laissait à désirer.

J'ai rempli durant 23 ans la charge de Secrétaire de ce Collège des Dentistes, à peu près gratuitement.

400 est Sherbrooke

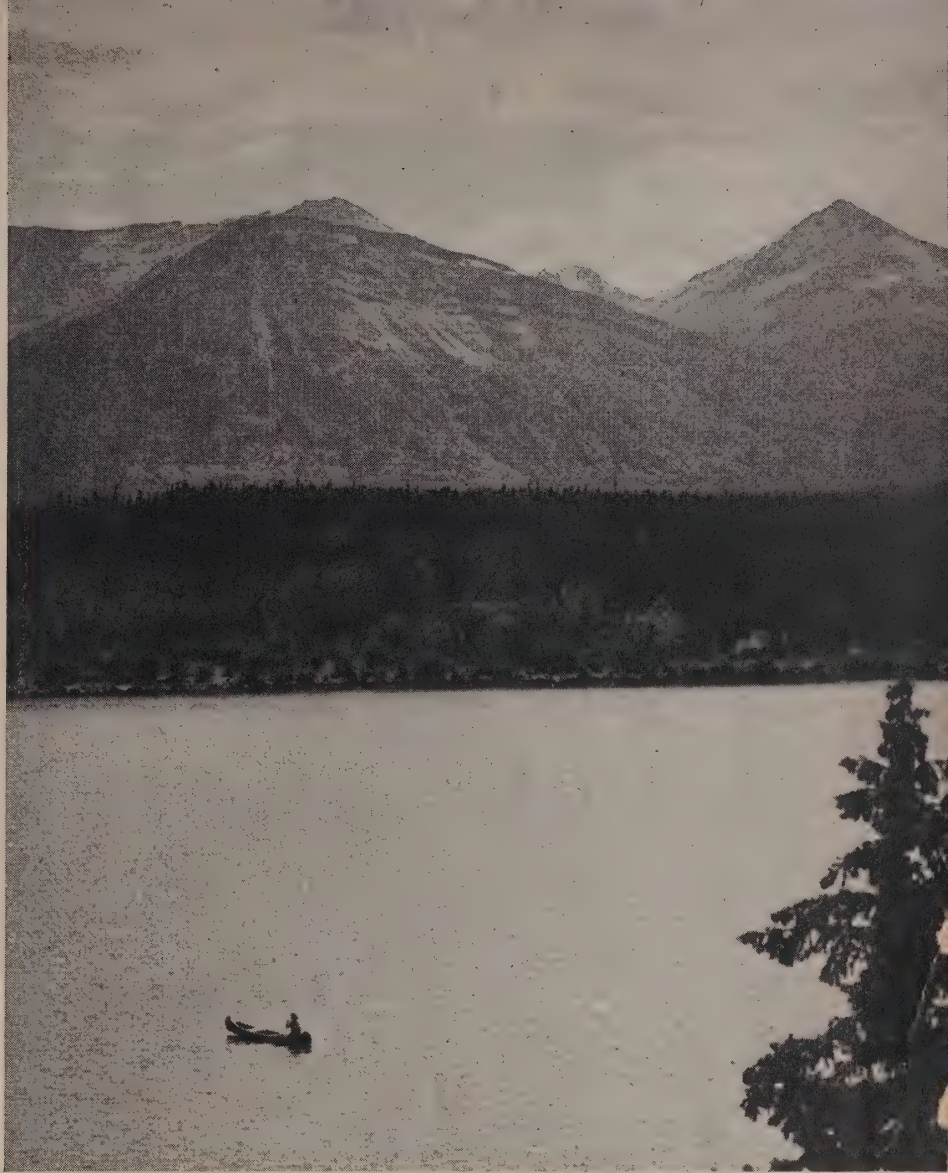


Photo from Canadian Government Travel Bureau

**PYRAMID LAKE IN JASPER NATIONAL PARK
ALBERTA, CANADA**

*If any thought of mine, or sung, or told,
Has ever given delight or consolation,
Ye have repaid me back a thousandfold,
By every friendly sign and salutation.*

—LONGFELLOW.



CHARLES A. DURAND, D.D.S., L.C.D.

Montreal, Quebec

Graduated from the Université de Montréal, 1928.
Past demonstrator in Operative Dentistry, Université de Montréal.

Demonstrator in Prosthetics, Université de Montréal.
For many years, member on the dental staff of the following hospitals, Ste. Jeanne d'Arc, de la Miséricorde and Notre-Dame de la Merci.

Member of the Société des Ecrivains Canadiens-français.
Author of the manual, "Comment Prévenir la Carie Dentaire."

Director of La Société du Bon Parler Français.
Past Président of La Société Dentaire de Montréal
Member of the American Academy of Dental Medicine.



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, JULY, 1952

No. 7

Challenge To A Young Profession*

by WILLIAM MILLER, D.M.D., F.I.C.D., Vancouver, B.C.

DENTISTRY is a young profession. Medicine, law, and engineering were old professions before dentistry appeared, as such. A little more than a hundred years ago, a small group of men, aware of the place of oral health in the chain of general health, decided that dentistry was too important to be left to the haphazard system of training which prevailed. Consequently, the first school of dentistry was opened in Baltimore, in 1840, and dentistry, as a profession, was born. Since that time, the standard of training has been raised consistently, until today, the student of dentistry must have two years of arts and science, as a prerequisite to four years of technical training.

During that hundred years dentistry has known most of the vicissitudes of a growing child. Certain techniques were vigorously advanced by individuals, became the mode for a time, then disappeared. For example, it was considered good practice at one time to devitalize all teeth. The threat of focal infection swung the pendulum in the other direction. The making of gold shell crowns had a tremendous play for many years.

Other developments were of a more permanent nature. McTaggart introduced the gold inlay. G. V. Black, the father of modern dentistry, formulated standard procedures for cavity

preparation, and his inquiring mind contributed a great deal to other phases of the profession. The work of these men tended to lay emphasis on the technical procedures in the restoration of lost tooth structure, and manufacturers had a field day producing innumerable gadgets, which came and went like the passing whims of an adolescent.

Indeed, it is not unreasonable to consider that this growing profession has been passing through a period of adolescence, but there are indications of approaching maturity. The purely technical phase has reached a certain degree of stability. Dentistry now appears ready to launch into the field of research, in a serious effort to determine the basic causes of dental disease, rather than being content with merely repairing the damage. It is also gratifying to note the number of recent graduates who are entering practice with a greater appreciation of the importance of children's dentistry, one of the vital phases of prevention.

Yet, aside from all this progress in the actual work of dentistry, there is an equally important way in which our profession must mature, if it is to be respected and honoured by our people. I have reference to the word "profession", in its highest and noblest connotation.

*Presented to the students of the Faculty of Dentistry, University of Alberta and members of the Edmonton and District Dental Society.

Too long the taint of commercialism has dogged the footsteps of dentistry. It is true that in most communities the "advertising" dentist has been checked or eliminated, but we must not rest content until this blot on our escutcheon has been completely erased. Even among presumably ethical practitioners there are still too many who do not appreciate the full meaning of practising a profession. Here we come into the field of ethics and morals. Are we prepared to become a profession in deed as well as in name? Here is the challenge.

The avowed primary objective of a commercial enterprise is the accumulation of wealth. The primary objective of a profession is service, with financial return as a necessary but secondary consideration. Many men in the profession have this high concept of practice, but there are many who make dentistry a purely financial venture.

Technical skill and sound business practice will make for success, but it takes idealism and high purpose to make for greatness, and that is the challenge which dentistry faces today. Are we ready and willing to serve the Canadian people in that particular field for which we are trained? Idealism is not to be put aside lightly as being impractical. It is a force capable of changing the course of history.

When George VI became King of England, the British throne was in a perilous position. The story is told that Edward VII, a shrewd man, once took young David (later Edward VIII) on his knee and said, "This boy will be the last man to sit on the throne of

England." When our late King died he left the throne more firmly established than ever. How did he do it? Not by force of arms, nor by oratory, nor by political manoeuvres. He did it by setting a standard of integrity which was above reproach. He took to himself the words of the old Hebrew prophet, Micah: "to do justly, to love mercy, and walk humbly with his God." He gave his life in the service of his people. His personal life and his family life excited the admiration of the world, and when he died the whole world mourned.

Again, when the apparently invincible armies of Hitler rolled across Europe, the obvious thing for England to do was to surrender, against such hopeless odds. But there were idealists and men of courage in Britain. Churchill stood in the Commons and said, "We will fight them on the beaches, in the fields, in the streets, and in the houses. We will fight and we will never surrender." History records that the "invincible" Luftwaffe shattered itself against a handful of British airmen.

In this young Canada of ours we are the inheritors of such traditions. Canada is on the march, destined for greatness. Dentistry must be prepared to match that greatness by serving the Canadian people with the highest quality of service. It will take standards, whether from without, through the action of governments, or from within, through the action of thoughtful individuals.

The people of Canada need our services. Let us meet the challenge, that they may be proud of us.

Office atmosphere is becoming, today, of far-reaching importance in our professional lives. We are dealing with an ever increasing public demand for pleasant surroundings. They are becoming decidedly critical of our offices and the kind of comfort provided in those offices. Gone are the days of hard chairs, dull colours, and any old equipment will do ! Today we are being judged on pleasant, clean offices—and patient relations are thus improved. Surprisingly, too, you would be amazed at the lift in personal morale by the improvement of office surroundings.—From Editorial in Jour. of Oklahoma State D. Assoc.

The Incidence And Assessment Of Gingival Disease*

by ISAAC SCHOUR, D.D.S., Ph.D., and MAURY MASSLER, D.D.S., M.S., Chicago, Illinois

PERIODONTAL diseases are responsible for a greater loss of teeth in adults than occurs from caries. This statement is generally accepted, but is not supported by sufficient objective data. Surveys on the incidence of gingival inflammation yield a wide range of 4 to 90 per cent in the prevalence of this disease. This range is obviously a reflection of differences of technique rather than a true difference in the occurrence of gingivitis. Adequate methods of assessing periodontal diseases (gingival and alveolar bone) must become clarified and standardized before the epidemiology of these diseases can be determined with any degree of accuracy.

A simple method of assessing gingival disease in large population groups was first developed on the basis of preliminary epidemiologic investigations of gingivitis in malnourished persons living in Italy. This method is based upon the examination and assessment of each individual gingival unit in the mouth. The gingival unit has been defined as the papillary (P); marginal (M); and attached (A) gingiva mesial to any given tooth. For this reason, the method has been termed the P-M-A index of gingival disease. The number of units affected in each individual can thus be counted on an objective basis and the data, thus obtained, can be subjected to statistical analysis.

The P-M-A method has been applied during the past two years to a total of approximately 50,000 persons ranging in age from 2 to 50 years. Analysis of the data showed that the gingivitis attack rate is characterized by two phases. The first phase is characterized by a rapid rise from a low point at 5 years (9 per cent of the children affected by gingivitis) to a peak at 11 to 13 years (65 per cent of the children affected). Thereafter, there is a de-

crease to a plateau at about 16 years of age. There appears to be no increase in gingivitis between 16 and 25 years.

The second phase begins at approximately 25 years of age and increases very slowly in contrast to the first phase. It appears to follow a simple cumulative pattern. During the second phase, two distinct rates of attacks could be distinguished: a higher incidence of gingivitis in a group of factory workers; and a lower one in a group of office workers. The high incidence in the factory group was probably correlated with obviously poor oral hygiene present in this group.

These two phases of the gingivitis attack can also be readily distinguished on a clinical basis. The first phase is characterized by an acute inflammatory response and is self-reparative since it is largely related to the eruption, crowding and shedding conditions of the teeth during the mixed dentitional period. The second phase beginning after 25 years of age is characterized by chronic inflammation and is not self-corrective, but tends to be accumulative.

Gingivitis usually progressed from the papilla (P) to the marginal gingiva (M), and finally to the attached gingiva (A). The ten anterior gingival units (upper and lower anterior segments) bear the brunt (85 per cent) of attacks by gingivitis.

While the P-M-A method is primarily useful in studies of large population groups, it can also be helpful in everyday dental practice. In the treatment of gingival and alveolar bone diseases it is important to record the condition of these tissues in a simple yet accurate manner as a basis for comparison with the results of treatment. It takes not more than two minutes to check and record the condition of the gingivae in the average mouth. It is not

*Abstract of Alpha Omega Lectureship, presented at the Faculty of Dentistry, University of Toronto, Alumni Chapter, January 29, 1952.

necessary to prepare special record charts. Most of the standard charts used in general practice indicate separate blocks or outlines of crowns and roots for each tooth. With a coloured pencil the degree of papillary gingivitis (1+, 2+, 3+, or 5+) can be easily marked in the interproximal space between the teeth; marginal gingivitis can be marked at the neck of the tooth; and attached gingivitis below the neck of the tooth. The original record at the beginning of the treatment can then be compared with the changes following treatment. The effectiveness of different methods of treatment can be recorded and observed more accurately by using the P-M-A index. Cases which do not yield to local treatment can be more easily detected by objective methods of recording so that the search for systemic factors, such as metabolic or nutrition-

al conditions, might be pursued further.

In the progress of science we first start with simple descriptions, advance with more precise terminology and finally attain the discipline of objective accuracy by quantitative measurements. The P-M-A index offers a yardstick with which to measure gingival diseases. Further studies, both epidemiologic and comparative, may yield methods for control of gingival disease just as studies using DMF index have yielded methods for the control of caries.

The findings that have been presented are related primarily to gingival disease. The prevalence and incidence of alveolar bone diseases are not yet known and require separate study and analysis. We hope to continue these studies with greater emphasis on diseases of the alveolar bone of both local and systemic origin.

Cyst Of Mandible

by W. SCOTT HAMILTON, D.D.S., F.A.C.D., F.D.S.R.C.S. (Eng.)
University of Alberta, Edmonton, Alberta, 1949

APRIL 7. (Mrs. A. L.) Farmer's Wife, Age 45. No Children. Patient referred because of slight haemorrhage and pain since January, 1949. Teeth removed in November, 1948. Referred for Radiographic examination.

Radiographic Report (Fig. 1)

April 7

Radiogram of the right mandible in the postero-anterior and both oblique projections.

A cystic area with smooth regular borders involves the right mandible and extends from the molar area to the incisor on this side measuring about 5 cms. in length. A thin shell of bone remains. No root fragments nor teeth are apparent in the area examined.

Summary

Large cystic area, right mandible.

Signed—M. Mallett, M.D.

April 8

Admitted to University Hospital.

History of Present Illness

Complete removal of teeth November, 1948. Pain and slight haemorrhage from right mandibular area since January, 1949. On restricted diet for obesity for several years. Because of hypertension, chest pain, abdominal



FIG. 1.—April 7, 1949, Pre-Operative

pain and abnormal menstruation, the patient was referred to Dr. Rich for medical opinion. He reported the patient in condition for operation. Following the operation he took charge of the systemic treatment. This has not been fully included in this report.

Past History (Synopsis)

Large ovarian tumour removed in 1930. Pain left chest radiating to lower abdomen for eight years, related to nervousness and obesity.

Heart sounds normal.

Abdomen tender, no palpable masses. State of anxiety dates back to her experience in Russia in 1919 during the revolution. Takes sleeping pills constantly.

Temperature—99° Pulse—72

Respiration—18 Blood pressure—
165 over 100.

Signed—A. Hepburn,
Medical Intern.

Basal Metabolism Record

First reading—plus 10

Second reading—plus 10

Laboratory Reports, Pre-Operative

Blood	Urine
R.B.C. 4,260,000	S.G. 1.022
W.B.C. 8,450	Albumin—negative
Haemoglobin 88%	Sugar—negative
Clotting time—4½ mins.	W.B.C.—few
Bleeding time—4 minutes	

Operative Notes

April 9

Operation. Removal of cyst and bone graft from ilium.

Surgeons—Dr. W. S. Hamilton, Dr. O. Rostrup.

First Assistants—Dr. Osborne, Dr. Windsor.

Second Assistant—Dr. Hepburn.

Scrub Nurse—Miss Sakall.

Anaesthetists—Dr. Gain, Dr. Simpson.

Anaesthetic—Intravenous pentothal sodium. Intratracheal Nitrous Oxide, Oxygen.

Preparation—Region of ilium shaved. Mouth and face sponged with Zephrene.

Preliminary Drugs—Luminal gr.

1½ h.s. Morphine gr. 1/6. Atropine gr. 1/100 at 8:30 a.m. S.R. penicillin 400,000 daily.

An incision was made within the mouth over the alveolar ridge, the mucous membrane reflected exposing the cyst.

The lining was completely removed *en masse*. Examination revealed the contents of the mandibular canal lying in the floor of the cavity. Cancellous bone from the crest of the ilium provided by Dr. Rostrup was first dipped into a solution of bacetracin and then packed tightly filling the cavity. The mucous membrane was then sutured tightly together.

Post-operative Diagnosis

Cyst of the mandible.

Signed—W. Scott Hamilton.

Post-operative Orders

A.P.C. c codeine grs. ½ q.3. h., p.r.n.

Remove airway when patient objects to it.

S.R. penicillin 400,000 daily.

Post-operative Radiographic Report (Fig. 2)

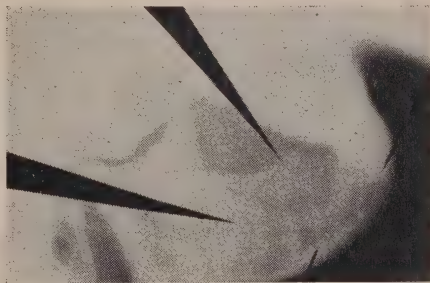


FIG. 2—Immediately Post-Operative

April 11

Films of the right mandible show a large cystic area 4 x 2.5 cms. This would appear to have been partly filled with cancellous bone chips.

Summary

Bone cyst, right mandible.

Signed—H. E. Duggan, M.D.

Progress Notes

Patient made a normal post-opera-

tive recovery. Only mild sedation was required for control of pain. Temperature rose to 100.4 on second day and returned to normal on the fourth day.

April 16

Sutures removed.

April 20

Discharged from hospital.

October

The patient returned to the office for the first time since leaving the hospital. The only complaint was a slight limp from the recovery of bone from the ilium. Dr. Rostrup assured her that this would disappear. Examination of the mouth revealed an edentulous alveolar ridge which was normal in appearance except for a few small bone spicules which had the appearance of penetrating the mucous membrane. These could easily be brushed off causing only slight haemorrhage. The patient reported that the tissues had not broken down at any time since operation. Patient was referred for radiographic examination and later for insertion of dentures.

October



FIG. 3—November 27, 1949

Radiographic Report (Fig 3)

October 27—Right Mandible Re-check.

Radiogram of mandible in the postero-anterior and both lateral projections.

At a previous examination done in this office on April 7, 1949, a cyst was reported involving the right side of the body of the mandible.

Since this, cancellous bone has been placed in the cavity and considerable re-calcification has taken place, although the cavity is not yet entirely obliterated.

Signed—M. Mallett, M.D.

Comments

Dr. Simmons of Vancouver has shown me cases where cancellous bone was inserted into cystic cavities of the mandible via the extra-oral route, but I have been unable to find any reports in the "Index of Periodical Literature" or the "Index Medicus" of cancellous bone having been inserted via the oral route. Furthermore, I have done only this single case and therefore cannot recommend it as a regular procedure. Having to expose the ilium may be considered a disadvantage, but when the post-operative care can be reduced to about one week, it would appear that this disadvantage can be overlooked. Furthermore, there is no reason why a frozen bone-bank of cadaver bone, from fresh traumatic deaths, cannot be maintained in all hospitals. This can be installed as a part of an ice-cube machine, or other refrigeration equipment. The possibility of syphilis or certain other diseases cannot conveniently be demonstrated in a cadaver, but I am informed by our pathologist that penicillin or other antibiotics mixed with the fresh bone before freezing would make it safe for use. In some hospitals, bone is kept unfrozen in antiseptics such as merthylate, but this is considered inferior to frozen bone. Fresh autogenous bone is, for certain, to be preferred. Insertion of bone by the extra-oral route will leave a scar which should be avoided when possible.

One reason why Solomon's temple took 7 years to build might have been because he had 1000 wives to make suggestions.—Home Life.

NRC Associate Committee On Dental Research Holds Annual Meeting

by S. J. COOK,* Ottawa, Ontario

TEN members of the Associate Committee on Dental Research of the National Research Council, and five of its grantees, met in Ottawa on 3-4 March, 1952, for the annual meeting of the Committee. Reports on the year's work were reviewed, and applications for further grants in aid of research were considered. Nominations for new members to succeed those whose terms had expired were made.

The Associate Committee on Dental Research was organized by the National Research Council in 1945. It has grown steadily in influence and is now supporting a comprehensive program of research.

The objects of the Committee are as follows:

- (i) To stimulate research of interest to dental science among members of the dental profession, and also in the basic and medical sciences;
- (ii) To co-ordinate dental research in Canada;
- (iii) To encourage close collaboration with other research organizations in problems of mutual interest;
- (iv) To advance the application of research results in the interests of improved national dental health.

In pursuit of these objectives the Committee makes grants in aid of approved projects of dental interest and offers fellowships for post-graduate research. Grants are not restricted to members of the dental profession only but may be awarded for work in the basic or medical sciences on subjects relevant to dental research.

At the March meeting, Dr. J. J. Rae of Toronto, who has been working on

"Chemical Mechanisms in Dental Caries," reported that his work had shown that there was no correlation between l.b.a. counts and lactic acid production, although many people think that such a correlation actually exists. Dr. Rae has published a number of papers and has others in preparation on this research.

The Committee showed continued interest in the work being done by Dr. M. Doreen Smith on the "Fluoride Content of Enamel and Dentine of Teeth from Toronto Children." It had been suggested that children fed on pablum might have a higher fluoride content in their teeth enamel, but Dr. Smith stated that she had found no significant difference in this connection between pablum and non-pablum cases in so far as enamel is concerned, but some differences were found to occur in the dentine. Three areas have been investigated: Sarnia, where the water supply has a naturally low fluoride content; Stratford, where the water supply is high in fluorides; and Brantford, where the water supply is naturally low in fluoride and has had fluoride added to it in recent years. Dr. Smith has been interested in the fluoride content of foods and in a study seeking to determine how far food fluoride, as distinct from fluoride in water supplies, has an effect on teeth.

Dr. W. J. Linghorne, who has been working with Dr. C. H. Best at the Banting Institute, on "Fusospirochetal Infection and Pre-existing Inflammation," described his work at some length. This is a long-term study which has aroused considerable interest not only in Canada but in other countries. One of the results found from Dr. Linghorne's work on rats indicates that a

*Secretary of the Associate Committee on Dental Research of the National Research Council of Canada.

diet deficient in the B vitamin is a predisposing factor in the experimental infection of the animals with fusospirochetal exudates.

Work in a similar field is being carried on by Dr. J. B. Macdonald at the University of Toronto. He has prepared two papers for publication and has a third in progress. These three papers will deal with (a) method of morphologic identification; (b) method of isolation of organisms; (c) key to recognition of organisms reported in the literature over many years. Interest in the general subject of bacteriology of periodontal disease is very keen.

During the last year, the Committee has supported two fellowships in dental research; one of these was held by Dr. Willa Liu Chou, working in co-operation with Dr. R. E. Moyers at the University of Toronto, on "A Study of the Migration of Tooth Germs before and during Mixed Dentition." The other one is held by Dr. Gerald Shklar working under Dr. Irving Glickman at Tufts College Dental School, on "Studies Relating to Oral Pathology and Bacteriology."

No applications for fellowships for 1952-53 were received by the Committee.

An important item was the question of the publication of dental research reports. It has been the practice of some dental research workers to publish their papers in journals which are used by other workers in the same fields, in order that they may obtain the help of such contemporary workers. As a consequence, many research papers relating to work done in Canada are published in the United States or other countries rather than in Canadian journals. The view was expressed that Canadian literature is losing out through the publication of dental research papers in journals outside of

Canada. The Committee was sympathetic to the idea that the dental profession in Canada should be made aware of the progress that is being made in dental research in this country. After some discussion the Committee agreed to encourage its grantees to prepare from time to time, for submission to the Journal of the Canadian Dental Association, articles of a review character in which researches might be described in general terms and placed in their setting in the wider field of international progress in dentistry.

Four of the members of the Committee completed their terms of appointment on 31 March, 1952. Of these Dr. J. S. Bagnall, of Dalhousie University, had served only a two-year term; Dr. R. A. McDougall of Victoria, and Dr. A. W. Ham of Toronto, had both served one partial term and one full term of three years. These three were, therefore, eligible for nomination for a further term of three years, and the Committee so recommended.

Dr. J. B. Collip, Dean of Medicine at the University of Western Ontario, had completed two full terms as a member of the Dental Committee, and was, therefore, under Committee by-laws ineligible for re-nomination. To succeed Dr. Collip, the Committee nominated Dr. Edwards Pagé, of Laval University, and his appointment was subsequently approved by Council.

Grants in aid of research made for 1952-53 included recommendations for the renewal of ten grants held last year, and two new applications. The total amount of these grants for 1952-53 will be \$21,390. This is slightly less than the amount awarded by the Committee last year.

The next meeting of the Committee is to be held in Ottawa, on Monday, 29 September, 1952.

There is healing out of doors.—Bliss Carman

God made the country and man made the town.—Cooper.

The Vancouver Pedodontia Study Club

by R. E. CLINE, D.D.S., Vancouver, B.C., Historian for the Club

THE present-day trend in almost every science related to health matters is definitely toward prevention. Medicine has made notable strides in this direction within the memory of most readers. Immunization, for instance, was once bitterly opposed by a large section of the public, but is now commonplace. A change in public and professional thinking has taken place. The children of today are being closely checked for evidence of incipient conditions which we now know are treated most successfully when treated early. Sight, hearing, postural and dental defects are much more likely to be recognized in their early stages today than ever before. The basic motivating force among the workers in all these fields is the old conviction that, "an ounce of prevention is worth a pound of cure." Today, the health sciences are making rapid progress in finding new and better ways for providing these ounces of prevention.

Few of the health sciences are blessed with such an opportunity in this field of prevention as is dentistry. Why, Nature was even provident enough to give us a ready-made division between dental childhood and dental adulthood—namely, the primary teeth and the permanent teeth. The tremendous importance of the earlier period, when primary teeth are still in the mouth, to the ultimate dental health of the patient, is gaining its rightful place in the eyes of the public and the profession. Dentistry for children, in all its aspects, is finally coming into its own.

ORGANIZATION

This trend in the dental profession found one of its most effective local expressions in the formation, a few years ago, of the Vancouver Pedodon-

tia Study Club. A group of eighteen dentists, some of them pedodontists, but largely general practitioners, banded together with the primary aim of furthering the cause of dentistry for children. The club wanted, in particular, to test and endorse practical methods that could be adopted by the general practitioner, and for this reason, it was organized as an "operating" club, patterned on the gold-foil study clubs of the Pacific Northwest that have operated successfully for so many years. Briefly, the monthly meetings were organized to follow a set procedure: during the afternoon portion, six members operate in their own offices under the scrutiny of two other members, and following a group dinner, these reporters criticize the operation they have witnessed. Each operator has done the same type of operation, so a group discussion can generally settle whether or not the individual criticisms are justified. The same operative procedure is repeated month after month until the club feels it has tested all the possible variations and has finally settled upon the simplest and most practical technique. If a dispute arises that cannot be settled by group discussion, a committee is appointed to go fully into the pros and cons, and a report is made at a later meeting.

PROGRESS

An outline of the past activities of the club may indicate to the reader to what extent the basic aim of the club is being carried out. From the technical aspect, a two-year study has been completed on the class 11 amalgam in primary teeth. All operations are done under the rubber dam, the club having adopted a technique publicized by one of its members in an article in the *American Journal of*

Dentistry for Children. At the present time, the club is working on the class 11 amalgam in the first permanent molar. The next major project is the vital pulpotomy, and the meetings for the next several months will be devoted to a practical investigation of space maintainers — indications for their use, types, and construction details.

Aside from these monthly meetings that have taken place since October, 1949, the club has occasionally provided chair and table clinics at dental conventions, whereby the knowledge it has acquired is passed along to the profession. These presentations provide the vehicle through which the club hopes to stimulate a wider interest in children's dentistry, so great care is taken in their preparation. In May, 1950, table and chair clinics on nutrition, preventive orthodontics, class 11 amalgam, and oral diagnosis were presented at the B.C. Dental Association convention at Kamloops. The following January, the club provided the program for the afternoon portion of the Vancouver and District Dental Society meeting. Three novel "televised" chair clinics were presented on the following subjects:

- 1) Class 11 amalgam in a primary tooth
- 2) A vital pulpotomy

3) A cast space maintainer.

At least seventy-five dentists witnessed this clinic and all were outspoken in their praise. Next, the club travelled to the Interior Dental Society meeting at Penticton in April, 1951. A day-long program included chair clinics on amalgams, rubber dam for children, vital pulpotomy, and cast space maintainers, plus table clinics on preventive dentistry, preventive orthodontics and the treatment of fractured anteriors. About thirty dentists from the interior towns gained new enthusiasm for children's dentistry after watching these clinics. Again in June, 1951, the club presented their "televised" chair clinics at the 8th Pacific Coast Dental Conference in Seattle, Washington; and the most recent presentation of this material took place at Victoria, B.C., in October, when the club was proud of being able to draw over 90 per cent of the members of the Victoria Dental Society to see the clinics.

The foregoing description of the club activities is ample proof that it is indeed succeeding in stimulating a greater interest in more and better dentistry for children in the province of British Columbia. It is with genuine enthusiasm that the members look forward to their future activities in this organization.

We still have a country that is free in many respects. Freedom implies the assumption of risks by the individual. It implies that a free individual will provide for himself and his old age. This is a part of the price and part of the reward for freedom.

The reason this country was settled in the first place is because men prized their freedom much higher than their security. The security that they left behind involved restrictions which had become unbearable.

The results of the ever-increasing restraints on individual freedom could lead not only to a degenerate society, but a bankrupt nation with all the devastation that goes with it. This is not security. It is originally sold as such to the people. They will look forward to it, as prescribed by law. It may take a generation or more before they discover that they have been misled, partly by their own greediness, into thinking there is a bigger, better, easier way of life. A nation of disillusioned and hopeless people could mean the fall of American civilization.

Put the social-security program on a pay-for-what-we-receive basis. That is, make it actuarially sound. Make participation optional, restoring freedom of choice.—
Laurence D. Luey, Comptroller of Connors Steel Co., Birmingham, Ala.

The Forum

PROPHYLAXIS AS A PRACTICAL METHOD OF REDUCING DENTAL CARIES

by GUTTORM TOVERUD, Tannlege, Ph.D.

Professor of Paedodontia, Dental School of Norway

Summary of paper in *International Dental Jour.* Sept. 1951

1. As dental caries is the result of a fight between direct attacking factors and the resistance forces of the tooth and organism, caries prophylaxis has to be directed to these two main fronts.

2. Statistically significant reduction in new caries, chiefly in children, has been found:—

By reducing the intake of sugar and sweets — especially between meals— and increasing the intake of more valuable foods.

By brushing the teeth within 10 minutes after ingestion of foods and sweets.

By the use of penicillin-containing tooth-powder. This powerful antibiotic, however, should not be used

for ordinary caries prophylaxis.

By application of 2 per cent sodium fluoride to the teeth—preferably soon after eruption.

By systematic health and diet control of mothers and young children. The diet prescribed being one rich in vitamins and minerals and low in sugar and sweets.

During and soon after the Second World War in the war-torn countries, there was a great reduction in consumption of sugar and sweets. These were partly replaced by more valuable and natural foods. This period was characterized by a reduction in caries in these countries.

By adding 1 mg. fluorine per litre drinking water.

IN DEFENCE OF WRONG

Editorial in Contact Point

College of Physicians and Surgeons, School of Dentistry, San Francisco, California

Every one of us who has selected a profession for our life's work has, in addition to other factors, made that choice because of the respect in which that profession is held. Yet among us there are those who seek to destroy that respect! Throughout the years, built as a result of sacrifice of our predecessors, there has evolved a tradition among the health professions that its members place patients first. Hippocrates put this philosophy into an oath, the world's great writers have spread the gospel in their works, commencement speakers extol it, the

world has accepted it. As a result, the professional man has gained stature, and none who have followed that precept religiously can sincerely say that he has truly lost thereby. He may not acquire material wealth, but he never descends to dire need, and does gain wealth in love and respect of his colleagues, and can meet the soul-searching looks of the one whom he sees daily in the mirror.

Many times dentists are confronted and implored to take courses to adopt business systems which practically guarantee to increase their incomes. It

makes no difference what the dentist's income is at the time, the salesman for such courses promises that if you pay his outfit the tuition or fee for the instruction, you will surely profit dollarwise. Actually, it is a matter of simple arithmetic. You add so much per cent to your fees. Your so-called tutor merely gives you courage to do so. Actually the dentist could do this without being told to do so, but a license to practise dentistry is not a license to charge exorbitant fees, nor to ride rough shod over human feelings in their collection. For the time being dentists have the privilege of setting their own fees. When higher fees for special services are justified the public recognizes ability, but they are equally able to recognize the unscrupulous. Patients have learned to trust their dentists and their physicians, they ex-

pect them to preach good health and health services, but never to *sell* them. The dentist administers health, he belittles himself and his profession if he stoops to place himself in competition with the radio, the television or the automobile dollar — to get his! The public expects the salesman to overstate his case; it trusts the professional man. The real estate man tries for the highest price obtainable — everyone expects him to. But the Doctor of Medicine or Dentistry is expected to present truthful advice, and then to make it possible for that advice to be taken, within the economic means of the patient, not the overselling and the consequent hounding of the high-pressure merchants.

These are wrongs none can defend— they spell professional suicide.

FLUORINE CONTENT OF VEGETABLES COOKED IN FLUORINE CONTAINING WATERS

by DONALD J. MARTIN, Evanston Health Department, Evanston, Ill.

Summary of paper in Jour. of D. Research, Oct. 1951

1. Vegetables cooked in fluoride-bearing waters do absorb fluorine in proportion to the fluorine content of the water.

2. Vegetables cooked in a saucepan absorb more fluorine than vegetables cooked in a pressure cooker.

3. Frozen vegetables absorb more fluorine than fresh vegetables when

cooked in water containing 5.0 parts per million of fluorine, but little difference is noticed when the fluoride concentration of the water is 1.0 and 2.0 parts per million.

4. Vegetables cooked in fluoride-bearing waters have a direct effect upon the daily dietary fluorine supplement.

FORGOTTEN APPOINTMENTS

by W. N. KIRBY, D.D.S., Downers Grove, Illinois

Condensed from Illinois D. Jour, April 1952

Forgotten appointments — What should a dentist do?

Of course the most obvious answer is to charge for neglected appointments, a practice with which the writer thoroughly agrees and which he follows in his own office. But a more thoughtful answer might be this: the dentist should try, in every possible way, to avoid or prevent neglected or forgotten appointments. The effort

should all be directed toward prevention, and not application of penalties.

We do not charge our full average hourly rate for missed appointments. Consequently, even though we receive a nominal fee for forgotten appointments, it is still more profitable for us to be actually at work on patients. In the first place, a dentist seldom loses the entire time of a forgotten appointment; sometimes he doesn't lose any

of it. The alert operator will frequently continue working on one patient, when it is practical, until the next patient actually arrives; thus much of the lost time may be absorbed. If the full hourly scale is charged, particularly when sixty minutes or more have been missed, some of your very worthwhile patients are going to be seriously displeased, even when they know they are in the wrong.

The choice of a proper fee for a neglected appointment, then, becomes a matter for a delicate and highly indi-

vidual decision. Like so much advice on business matters, this must be adapted to each dentist and to the particular practice he services.

There is one other important point to be remembered by the dentist who charges for neglected appointments: let your entire clientele know, in every possible way you can think of, that it is your practice to charge. Don't ever try to hide this information from them.

Finally, don't be afraid to waive a fee if you feel such action is justified

DENTAL PRACTICE MANAGEMENT

by A. J. ABELOFF, D.D.S., F.I.C.D., Brooklyn, N.Y.

Condensed from N.Y. State D. Jour., Oct. 1951

The difference between success and failure in any undertaking may usually be found in the management of it.

The chief administrative problems of the general dental practitioner are common to all practices and fall into six major categories. They are as follows:

1. *Complaint and Request*

Failure to explore and evaluate the patient's complaint and his request for treatment. This is a phase of case history-taking, significant because it reveals the emotional component which can and often does modify the scope of treatment.

Complete examination correctly covered with study casts and a score of films is time-consuming and costly to the office. Therefore, it is most urgent to know in advance if the patient intends to follow up.

2. *Patient Classification*

Failure to determine the source of reference of the patient may leave unexplored the desirability of that patient to the practice.

3. *Patient Education (Prescriptive Logic)*

This category deals with our failure to explain, within the patient's ability to understand, the need for treatment as the dentist sees it. This concerns itself with patient education or patient

enlightenment. The opportunity is always present not only at the first interview but during the course of treatment and also when the treatment is completed.

4. *Post Treatment Responsibility*

Failure to explain the usual between-visit reactions that follow routine treatment may undermine patient confidence. For example, reaction to thermal changes of deep fillings may raise the question of residual caries; sensitivity of abutment teeth to partial appliances, or even the discomfort following a prophylaxis.

These explanatory discussions will bolster professional prestige, without which you do not have patient confidence and patient control.

5. *Fees*

Failure to make satisfactory financial arrangements before treatment is begun is the prime cause of delinquent accounts. They have a high rate of mortality. Any account may be considered delinquent one month after it is due; after six months it may be properly considered dead. Prompt payment of fees is a sign of confidence and does not necessarily reflect the patient's financial resources.

6. *Recall Service*

Failure to make provision in advance for future treatment militates

against the probability of a patient's return. Caries control and periodontal control in preventive dentistry cannot be established except through periodic re-examination. This phase is effective only if the patient requests periodic reminders. The plan is part of patient education and must be ex-

plained at his final visit. He is asked if he wishes to be reminded by mail as to when he is due for reinspection of those conditions that require watching. Recalls are not effective if employed as a means to bolster a dip in practice during periods of economic depression.

INJECTION TECHNIQUE FOR CHILDREN

by PHILIP M. GOLDSTEIN, D.D.S., in *W. Virginia D. Jour.*, Oct. 1951

Modern dentistry demands that the dentist use local anaesthesia to allay pain during operative procedures.

In my office we were confronted with a girl, age 7, needing a pulpotomy and filling on two lower second deciduous molars. I first used topical anaesthesia and explained to the girl that I was going to use some "magic cotton" on her tooth that would make her tooth fall asleep so that I could take the candy out of it. The topical I referred to as "soap to wash the tooth off." I then approached her with a loaded syringe with the needle sunken into a cotton roll. She asked about the syringe part of the "cotton" and I explained that it was to hold the magic cotton since my fingers weren't long enough. I removed the cotton roll inside the mouth and inserted a few drops of fluid into

the mucosa, withdrew the syringe quickly and passed it behind her head to my assistant who placed another roll on the needle. The needle may also be re-inserted into the original cotton in the mouth. After waiting a few minutes for the "magic" to begin working, I repeated the process and completed the mandibular. At no time did she see the needle or raise a fuss—and I have had no trouble injecting her since.

We have used this technique on all children since, have had no crying or demonstrating, and have even adapted it for use on apprehensive adult patients. Countless patients have honestly told me that the only part of dentistry they fear is the injection. I firmly believe that the psychology of not seeing the needle will benefit this type of patient.

CLINICAL PREVENTIVE DENTISTRY

by JOHN MILLER, M.D.S.

Department of Preventive Dentistry, Turner Dental School, Manchester, England.

Condensed from D. Mag. & Oral Topics, Feb. 1952

In 1947 a clinical investigation was begun in this department to study the problems of dental disease in children and to assess the practical value of four treatments which had long been advocated for the prevention or control of dental caries. These treatments were oral hygiene, silver nitrate, sodium fluoride and copper cement.

There were 150 children in each group at commencement of treatment.

Group 1

Full oral hygiene was carried out by

dental hygienists. A short lesson in dental health was given to the child at each visit.

Group 2

The solution of silver nitrate was applied to the molar and bicuspid teeth of the permanent dentition. The solution was applied to the appropriate teeth after prophylaxis.

Group 3

After prophylaxis the bicuspid and molar teeth of one half of the mouth

were isolated by cotton rolls and dried. A thin mix of black copper cement was run on to the pits and fissures and teased down the fissures as far as possible with a probe. The teeth were kept dry until the cement had set. The opposite side of the mouth was similarly treated.

Group 4

After prophylaxis the teeth of half of the mouth were isolated, dried and the 1 per cent solution of sodium fluoride rubbed with cotton pellets over all surfaces of all teeth. The solution was allowed to remain in contact for two minutes, after which the child was allowed to spit out any excess fluid from the mouth but not to rinse with water. The same procedure was repeated on the other side of the mouth.

RESULTS

By mid-1950, the treatments having been applied for two years, all chil-

dren had received four treatments and a period of six months had elapsed since the last treatment. From the dental inspection which was completed at this time there was no evidence of a practical reduction of the incidence of dental caries.

As a result of the regular oral hygiene and dental instruction by hygienists a marked improvement in the gingival condition was observed. Through the regular treatment of children by hygienists the children become "conditioned" to dentistry so that the conservative treatment is much pleasanter for the patient and for the operator.

It appears that present methods of conservation cannot cope with the whole problem of caries in school children, nor have our investigations, though somewhat empirical, shown any preventive treatment to be of practical value.

PREVENTIVE PERIODONTICS

by SIDNEY SORRIN, D.D.S., F.A.C.D., F.A.D.M., F.A.A.A.S.

Condensed from Jour. of D. Medicine, Oct. 1951

The subject of preventive periodontics embraces every phase of dentistry and medicine which may contribute to the prevention of periodontal diseases. Periodontia concerns itself with soft and hard tissues, namely gingivae, pericementum, bone and cementum. In view of the tissues involved, it is reasonable to assume that both local and systemic factors may affect these tissues.

Periodontal disease is not only confined to those past middle life but is found present at all ages. To prevent periodontal diseases, a thorough investigation of the factors responsible for their development is apparent.

A review of some preventive measures to be taken may be mentioned at this time.

1. Malocclusion should be noted as early as possible and eliminated by orthodontia, restorations or grinding. Strive for occlusal equilibration.

2. The patient should at all times receive a well-balanced, adequate diet.

3. Regular systemic check-up by a physician and regular dental check-up by a dentist should be part of the program. The regular check-up by the physician may include various biochemical tests. The dental examination must include casts, roentgenographic series, and charting of all local findings.

4. Practice good dentistry according to fundamental principles to prevent food impaction and periodontal diseases.

5. Instruct in the proper method of gingival massage.

6. Review abnormal habits which may injure or have already injured the periodontium.

7. Replace missing teeth as soon as possible.

8. Teach the children what good medical and dental health will do for

their future. Follow up these cases into childhood with an eye to preventive measures.

Preventive periodontics without adequate knowledge and information on prophylactic measures cannot be prop-

erly achieved. It also requires the co-operative efforts of both the dentist and the patient to be successful. When both the patient and the dentist understand their responsibilities in the case, preventive periodontics will have an opportunity for greater realization.

I AM RESOLVED

by EDWARD SAMSON, F.D.S.R.C.S. Eng., F.C.S.

Condensed from D. Mag. and Oral Topics

The making of resolutions, whether at the New Year or every Monday morning, or even the morning after the night before, is a healthy and heartening sign.

To offer ways and means of reformation to my colleagues would be an unpardonable intrusion into the intimacies of that most sacred of all places, where even psychologists approach warily—their consciences. Yet, in the modest assumption that I am a character no less debased than my fellows, I venture to confess the resolutions I have recently listed for my own use. Even if I never have the strength of mind to keep these resolutions I am prepared to permit their use by any who have failed to invent any good ones for themselves. They are not copyright and are available, with my good wishes, to all who might find them helpful.

I resolve (provided always that I remember):

To welcome with a smile all emergency cases; even if they have been emergencies for more than six months.

To admit that the full lower denture is hopeless once I have eased away all its fitting surfaces.

To assure the lady with fifty sets of dentures, made by fifty harrassed and competent dentists, that I am not capable of doing better than they did—be she ever so importunate or wealthy.

To insist that if I remove every tooth that shows a focus of infection

in the radiograms, the poor woman may still suffer arthritis, glaucoma, nervous debility or gastric ulcers.

To explain that my conservative treatment is often painful, that I sometimes cause undue generation of heat by hurrying with cavity preparation and, if the patient is restive it is due to my impatience and not to her being neurotic.

I also intend (at least at this moment) to own to myself that most of my failures are due to nervous instability induced by the passing of the years, to a liver grown inactive as a result of too little exercise, and not keeping abreast of modern technique.

To keep my wife's appointment unreservedly for her, and not to give it to the first extra patient I would rather not offend.

To spare five minutes from reading the paper for that unfortunate traveller from the dental company instead of saying I am too busy to see him.

To explain to the patient I have kept waiting over an hour that I was talking too long to the last one about golf instead of saying that it was a very difficult case.

Whether or not I manage to live up to their exacting demands I am convinced that resolutions, like secrets, are best kept by a large number of people. So, in case I continue to be as weak as I have been for many a year, I offer them to my colleagues for their safe keeping.

SOME RECENT DEVELOPMENTS IN DENTAL PRACTICE

by B. COHEN, B.D.S. (Rand), H.D.D., R.C.S. (Edin.) M.S.D. (Northwestern)

Excerpt from Jour. of D. Assoc. of S. Africa, Feb. 1952

So far as dental materials are concerned acrylic resins, in wide variety, have come to assume an increasingly important role. The eclipse of vulcanite as a universal denture base material is long since an accomplished fact, but the development of new acrylic materials—which, on reflection, has been astonishingly rapid—continues to proceed apace. The advent of self-curing types has brought the use of acrylic into the realm of Conservative Dentistry, and, although its value in this regard is far from established it is apparent that acrylic materials may come to play an important part in the restoration of carious teeth. The obvious deficiencies that have still to be overcome include problems of deleterious effects upon the tooth pulp, especially during polymerization, and of durability; the latter question can obviously be settled only after sufficient time has elapsed for accurate assessment of restorations exposed to mouth conditions for several years. If, at the present time, many of these acrylic materials appear to lack some of the

necessary qualities for restoring tooth structure, consideration should be given to the fact that their development is in its infancy. Such properties as colour stability and resistance to dimensional changes may well be ensured by further research, and much has been done already to offset undesirable physical changes accompanying the phenomenon of polymerization. Along with the development of self-polymerizing resins there has been progress insofar as varieties cured by heating are concerned. Their aesthetic merit is unchallenged, and they are most valuable for the construction of crowns and dummy teeth when due regard is paid to proper core preparation necessary to offset the tendency of acrylic crowns to retract from a root surface. There can be little doubt that acrylic resins have come to stay as a most useful addition to materials available for restoring tooth tissue. Even the most sceptical will recognize their obvious merit and, more than that, their unquestionable potentialities.

BACTERIEMIA

From Jour. of Michigan State D. Assoc., Nov. 1951

Question: If the extraction of teeth does produce a bacteriemia, how long may the bacteriemia persist following such surgery?

Answer: Okell and Elliott found that of ten cases, in which a positive culture was obtained directly after extraction, second blood samples secured at periods varying from ten minutes to eight hours after operating were negative.

Hopkins reported on blood samples secured at each five-minute period up to 30 minutes from 108 patients following extractions. All samples secured prior to operating were sterile. Eighteen (16.6 per cent) yielded posi-

tive cultures from the samples secured immediately after operating. In 17 of these 18 cases, the blood was sterile 15 to 30 minutes later and the remaining case was sterile in 10 minutes.

Reichel, working with experimental injections of various organisms into animals, concluded:

1. Most virulent strains of bacteria are removed quickly from the blood stream, probably by the action of the tissues through which the blood circulates.

2. This clearance capacity of the blood is not dependent on or affected by the powers of resistance of the host.

3. The greater the number of bacteria entering the blood stream, the greater the number of bacteria that will be removed from it.

Results of the experiments may be translated into one practical observation in respect to bacterial invasions of the blood stream of man: If bacteria enter the blood stream after operative intervention within an infected region, a short period of time will ensue during which a positive blood culture may be expected to appear, but the positive culture will not persist unless there is a focus of infection in the vascular system itself, such as is encountered in endocarditis or thrombophlebitis, unless an abscess is draining directly into the blood stream, or unless the blood stream is invaded by an or-

ganism which is not affected by the defensive action of the reticulo-endothelial system.

Northrop and Crowley reported:

In a series of ninety-seven cases of minor oral operations studied, in which blood cultures were taken before, immediately after and again ten minutes after operative procedures, the results were as follows: All cultures were negative before and ten minutes after operation, while, in the culture taken immediately after the operation, 13 per cent were positive.

Therefore, barring a complication such as an endocarditis, the transient bacteriemias following extractions are eliminated from the blood stream rapidly, probably in most patients within ten-minute periods.

INFECTED TEETH OF CHILDREN

From Jour. of Michigan State D. Assoc., Nov. 1951

Question: Is there reasonable evidence to conclude that a child's infected teeth are potentially less dangerous to health than infected permanent teeth in an adult?

Answer: Rickett stated in 1928: "More and more clinical evidence is accumulating indicating that infections of temporary teeth are equally as significant from the standpoint of secondary effects as are the infections of permanent teeth."

Inasmuch as the question involved has had no specific research directed toward its solution since 1928, it will have to be answered by incidental observations. Kahn observed that "the tissues of young animals do not possess as marked localizing powers in immunity as the tissues of adult animals, which helps to explain the greater susceptibility of the young to infection."

Rolleston reported statistical evidence of a higher incidence of rheu-

matic diseases in children suffering from dental infection than in children having healthy mouths.

Dentson reported a microscopic study of "simple granulomata" of 78 teeth in patients under 21 years of age (12 teeth were in patients under 11 years of age):

"From a detailed study of chronic periapical lesions in connection with permanent teeth and consideration of those available on deciduous teeth, it is evident that the aetiology, mode of formation and general structure of both types of lesions is similar. It is often stated that the time of infection is insufficient to produce a chronic periapical reaction, but I have seen such a lesion in a child aged three years."

Indirect evidence, therefore, appears to negate the often-expressed opinion that oral infection in children is potentially less dangerous to health than is oral infection in adults.

A man likes you for what he thinks you are; a woman, for what you think she is.—Ivan Panin.

ANNOUNCEMENTS

N.O.D.A.



CONVENTION KIRKLAND LAKE

"A Good Town, A Gold Town"

SEPT. 5th - 6th

● **EASTERN ONTARIO DENTAL ASSOCIATION CONVENTION** will be held in Chateau Laurier Hotel, Ottawa, September 21, 22 and 23.

● The **DENTAL ALUMNI ASSOCIATION**, University of Toronto are planning their Annual Dinner and election of officers to coincide with "Home-coming week-end", Oct. 17-19. The sporting event will be the Varsity-Queens football game Oct. 18. The Alumni Dinner will be held Oct. 17, at the Royal York Hotel and will take the form of dinner, entertainment and dance.

● **28TH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** will be held in Montreal **OCTOBER 22-24, 1952.**

● **ANNUAL MEETING OF THE AMERICAN ACADEMY OF PERIODONTOLOGY** at Statler Hotel, St. Louis, Mo., Sept. 4-6, 1952.

ANNOUNCEMENTS

● A number of new features, including a merger of all scientific sections for special discussions on the use of antibiotics in dentistry and on oral focal infection, will be presented at the **93rd ANNUAL SESSION OF THE AMERICAN DENTAL ASSOCIATION** to be held September 8-11 at St. Louis.

All 11 scientific sections will be combined for panel sessions on antibiotics and focal infection on Sept. 10.

In addition to the combined panel sessions, every phase of dentistry will be discussed by some 60 essayists at the 11 separate scientific sections.

Colour television clinics for the 1952 meeting will be shown.

The scientific program will include 200 table clinics and 50 scientific exhibits.

● **THE UNIVERSITY OF MINNESOTA SCHOOL OF DENTISTRY** announces the **SEVENTH ANNUAL SEMINAR** for the study and practice of **ORAL MEDICINE**, September 25-27, 1952, to be presented through the facilities of the Centre for Continuation Study.

The purpose of the seminar is to bring into one fold men of research, teachers, and practitioners in an effort to correlate the fundamental health sciences with the practice of dentistry. Ten distinguished speakers will discuss topics related to this field. Further information may be obtained by writing to the Director of Postgraduate Dental Training, Centre for Continuation Study, University of Minnesota, Minneapolis 14, Minnesota.

● Two hundred dentists, including top dental-medical researchers will be in attendance at the **NINTH ANNUAL SEMINAR FOR THE STUDY AND PRACTICE OF DENTAL MEDICINE** set for the Desert Inn, Palm Springs, California, October 26-30. The following will participate:

Herbert M. Evans, M.D., Berkeley, Calif.; W. Rettberg, M.D., Denver, Colorado; R. Reynolds, M.D., San Francisco, Calif.; W. Wainwright, D.D.S., M.S., Chicago, Ill.; H. Sicher, M.D., Chicago, Ill.; H. Becks, M.D., D.D.S., San Francisco, Calif.

All seminar lecturers will participate in a round table forum covering the application of the subjects to the practice of Dental Medicine.

Applications and full information on the Seminar program may be secured from Miss Marion G. Lewis, Executive Secretary, Room 200, Hooper Foundation, University of California Medical Centre, San Francisco 22, California.

● **GRADUATE STUDY AND FELLOWSHIPS AVAILABLE AT UNIVERSITY OF MINNESOTA.** Graduate study programs leading to the degree of Master of Science in Dentistry may be arranged with a major in Orthodontics, Oral Pathology, Oral Surgery, Oral Medicine, Periodontia, or Restorative Dentistry (Operative, Prosthetics, Pedodontia or Endodontia), and a minor in one of the fundamental health sciences. Courses vary in length from two to three years. An alternate program leads to the Ph.D. degree.

Fellowships and teaching assistantships are available for a limited number of graduate students, stipends ranging up to \$3600 per year. For further information apply to the Dean of the Graduate School, Univ. of Minn., Minneapolis.

● **THE AMERICAN ACADEMY OF IMPLANT DENTURES** was formed at the Chicago Midwinter Dental Meeting. Its purpose is the ethical promulgation of 'Implant Dentures'; through a cooperative effort established, by means of a mutual exchange of research advancements and attainments, in this phase of dentistry.

The qualifications necessary for participation in this academy are as follows; Membership in good standing of the American Dental Association or a component society thereof, or if beyond the territorial limits of the United States, the applicant must be a member in good standing of a recognized dental society. Secondly, the applicant for membership must have made successful advancements in this field.

For further information write the Secretary, Dr. Phil Loechler, Rochester, Minn.

● **FIFTH ANNUAL NEW ORLEANS DENTAL CONFERENCE**, Roosevelt Hotel, November 9-12. Secty. Dr. M. R. Matta, 629 Maison Blanche Building, New Orleans, La.

● **POSTGRADUATE COURSE IN ORTHODONTIA** for practising orthodontists only, for two weeks beginning January 25, 1953, at Temple University, Philadelphia, under the direction of Dr. Robert H. W. Strange. Fee \$150.00 exclusive of instruments and books. Apply to: Dr. Louis Herman, Temple Univ. School of Dentistry, 3223 North Broad St., Philadelphia 40, Penn.



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Editorial

INVESTMENTS FOR DENTISTS

The practice of dentistry has many attractions. A dentist is independent. He is master of all he surveys. He can come and go as he chooses. He can plan his holidays in any way he pleases and is not restricted to two weeks, or three weeks, after working so many years. A successful dentist never has to join the unemployed. He does not have to retire at sixty-five if he does not wish to do so. He not only keeps busy but his service brings health and comfort, beauty and longevity to innumerable grateful patients. If he is wise—provided he retains his health—he can earn enough to educate his family and save enough so that his children won't have to keep him in his old age. He will never become wealthy from the practice of dentistry but he can become well-to-do by careful investment of his savings, and this is about the most difficult thing a dentist has to do. The dentist has always been noted as an easy mark for the stock promoter and the get-rich-quick artist who camps on his trail.

This writer does not pose as an authority on investments but would bring to the attention of his readers a few well recognized conservative principles on this subject. Some things seem well established, such as life insurance, which one could perhaps place first in importance. Owning one's own home comes very high on the list of musts. A government annuity should be given careful consideration. If one lived in Alberta perhaps oil stocks would be placed first, but I don't live in Alberta. This article has no meaning to the dentist who gambles on the market and hopes to make a real fortune by so doing because in the end he will probably lose most, if not all, that has been invested. This is a word to the "conservative" investor, the one who has been in the habit of placing his savings in government bonds or the savings bank.

To such, the investing in common stocks has always been considered risky, and perhaps still is. However, the man who has followed the plan of investing in bonds is waking up now to find that there has been drastic shrinkage in his

securities as the result of inflation, and conditions may get worse. The purchasing power of the dollar has been greatly reduced. A wise course in these days is to place perhaps 40%, or more, of one's savings into well-established common stocks which, in the opinion of the experts, is the really conservative plan to follow. Let us examine carefully how large endowment funds are being invested at present by men who try to avoid taking any risks, in fact cannot afford to do so.

Recently the firm of Vance, Sanders and Company of Boston published the following statement of how a representative group of endowed colleges spread their funds as between common stocks, preferred stocks and bonds at the time of publication of their most recent financial report.

<i>Institution</i>	<i>Total</i>	<i>Bonds</i>	<i>Preferred Stocks</i>	<i>Common Stocks</i>
Cornell Univ.	\$ 53,897,698	45.88	5.95	48.17
Harvard Univ.	252,450,256	43.86	6.74	49.40
Johns Hopkins Univ.	41,032,870	44.57	9.78	45.65
Mass. Institute of Technology	44,476,442	37.61	.41	61.98
Pennsylvania Univ.	34,006,580	42.98	14.72	42.80
Washington Univ.	27,198,582	27.93	5.40	66.67

A careful study of these private endowment accounts reveals certain patterns of investment philosophy which should be of interest to every dentist who is trying to manage his own affairs on a conservative basis.

One might add that the chief characteristics of endowment investing are: (1) Reduce the risk of loss by spreading investments over a great many different securities; (2) Invest in different types of security; (3) Keep a reasonable balance between common stocks and fixed income-bearing securities; (4) Keep money productively at work under all kinds of economic conditions; (5) There is no "trading" or speculative "in and out" activity carried on.

Basically, endowment fund managers are conservative investors who are charged with the preservation and increase of the principal under their care, and dentists should be interested in the same thing.

At present Canada is a country of which we can well be proud and deserves our confidence. The St. Lawrence Seaway is to be proceeded with. There is the fabulous iron ore deposits in Labrador and Quebec. More millions are pouring into Alberta and Saskatchewan for oil development. In the last year a dozen new oil fields have been discovered. In the last two years oil production has doubled and redoubled. American institutions bought provincial and municipal bonds to the extent of \$50,000,000 last year; The total American investment in Canada now exceeds \$5,000,000,000.

All these facts do not add up to a serious depression at the moment. On the other hand, preparedness for war, government ownership with all its inefficiencies and socialism in various forms are coming rapidly to the front and all this leads to inflation. And to the extent that inflation takes place, fixed securities are reduced in real value.

The present boom is ageing rapidly and so the object of this article is not to advise what to buy, or when to buy, but to present some of the salient facts bearing on the question of investment and to give a picture of what conservative investors are doing under present conditions. To have higher wages and less real income, larger salaries but less to show for it at the end of the year, is not the kind of prosperity which makes much of an appeal, and yet we are faced with just such a problem.

M.H.G.

BOOK REVIEW

Handbook of Dental Practice, edited by

Louis I. Grossman D.D.S., Dr. med. dent., Associate Professor of Oral Medicine, School of Dentistry, University of Pennsylvania. Second edition 1952. 338 illustrations, 4 colour plates, 18 chapters and 19 contributors. 503 pages. Published by J. B. Lippincott Company, 2083 Guy St., Montreal, Canada.

This book brings up to date the newer knowledge in dental science. Each chapter is written by a recognized authority in his field, yet by men familiar with problems of practice. This second edition has added a new chapter on Oral Diagnosis: The subject of prevention of dental caries is well presented and conclu-

sions set forth; new antibiotics are discussed along with others in common use and new uses are suggested as in root canal therapy. There is a section on self-curing acrylic resins and their uses as a filling material.

The book is divided into two parts. Part One deals with diagnosis and treatment while Part Two is devoted to restorative dentistry. The book offers a review of advances made in modern dental practice. It offers methods of treatment and techniques all of which are superimposed on an understanding of biologic background.

Each chapter can be read and re-read profitably with a view to improved dental service to our patients. T.R.M.

ROYAL CANADIAN DENTAL CORPS NEWS

The Director General Dental Services, Brigadier E. M. Wansbrough, was guest speaker at the luncheon meeting of the Defence Dental Association, Ontario Branch, held at the Royal York Hotel, Toronto, on May 14, 1952. Brigadier Wansbrough gave a resume of his recent visit to Korea and Japan.

The R.C.D.C. School recently conducted an advance course in oral surgery and partial denture construction, emphasizing the chrome alloy materials. The group of officers in attendance were privileged to receive lectures and demonstrations on phases of oral surgery by Dr. James Coupland, Dental Oral Surgeon of Ottawa.

Dr. R. B. Telford, 30, of Vancouver, B.C., has been appointed to the R.C.D.C. Capt. Telford was born in Vancouver, attended public school and collegiate and entered University of British Columbia. After completing his second year Arts pre-dent in 1942 Capt. Telford enlisted in the R.C.A.F. and qualified as a pilot. He served in the United Kingdom, completed one operation tour and was discharged on demobilization in 1945 with the rank of F/L. Capt. Telford returned to his studies at the University of British Columbia and in 1946 transferred to the University of Oregon Dental School in Portland graduating with the degree D.M.D. in 1949. Capt. Telford who is married with two children has been practising in New Westminster, B.C.

Dr. Paul Veilleux, 38, has been appointed to the R.C.D.C. Capt. Veilleux attended public and high school in Montreal and the University of Montreal, graduating in 1938. Capt. Veilleux prac-

tised in Pierreville, Que., until 1941 when he was granted a commission in the Canadian Dental Corps. Following an injury suffered while on duty, Capt. Veilleux was given his release in 1943, and resumed practice in Sorel, Que. Capt. Veilleux is married with one daughter.

Major R. E. Brown and Captains L. V. Crowley, W. O. Mulligan and J. M. A. Donely have returned to Canada, following a tour of duty with 25 Canadian Field Dental Unit in Korea. They have been replaced by Major G. R. Covey and Captains H. A. Ferguson, H. R. Kettys and L. R. Pierce.

Majors E. C. Purdy and W. M. Sinclair of the R.C.D.C. School presented table clinics at the Ontario Dental Association Convention in Toronto, 14-16 May.

Lt.-Col. F. R. Drewry conducted an inspection of Reserve Force Companies in the Second Annual Competition for the Moore Trophy. The winner will be announced shortly.

Lt.-Col. G. B. Shillington was the R.C.D.C. representative on a Sub-Committee of the Inter-Service Medical Committee which recently completed an inspection of the hospital facilities in Newfoundland.

Colonel C. B. H. Climo, Deputy Director General Dental Services, who underwent a major operation at the Montreal Military Hospital recently, has returned to duty.

Warrant Officer J. F. Mullins of the R.C.D.C. School, has been promoted to the rank of Lieutenant and appointed Quartermaster. Lieut. Mullins, 34, was born in Halifax, N.S., and is married with one daughter. He enlisted as a private

in the Canadian Dental Corps in 1939, was promoted Sergeant in 1940 and served in the United Kingdom, Italy and

Northwest Europe from 1941 to 1945. Lieut. Mullins will be employed at No. 1 Central Dental Stores.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

50th Anniversary Canadian Dentistry Broadcast: Through the cooperation of the Canadian Broadcasting Corporation a half-hour drama documentary broadcast of the history and development of Canadian dentistry occurred on the Trans-Canada coast to coast network Tuesday evening, June 17, 1952.

Mr. George Salverson, C.B.C. radio script writer, prepared this drama presentation which had interest and appeal to all listeners. He did considerable research in preparing the script including conversations with quite a number of older practitioners. A picture of dentistry of today was clearly portrayed.

Bill for National Examining Board Passes Senate:—The Bill for the incorporation of the National Dental Examining Board passed its third reading in the Senate the end of May. The Bill then had to go to the House of Commons. Mr. Gordon Watson, Solicitor for the Canadian Dental Association and the Secretary appeared in Ottawa before the Senate Committee for discussion of the Bill on Wednesday May 28.

Annual Meeting:—From advance registration figures it was indicated that the attendance at the Vancouver Convention, June 15-18, would be the highest ever recorded for a dental convention in Western Canada. The program published in the May issue of the Journal was

commented on as being outstanding. The Convention Committee, under the Chairmanship of Dr. William Miller of Vancouver produced a well-balanced meeting in celebration of the 50th Anniversary of the Association.

American Dental Association Annual Meeting:—The 83rd Annual Session of the American Dental Association will be held in St. Louis, September 8-11, 1952. Indications are that the registration will be large. Hotel reservations may be secured by writing:

A.D.A. Housing Bureau,
911 Locust Street, Room 406,
St. Louis 1, Missouri, U.S.A.

Application forms for hotel accommodation are available at C.D.C. Headquarters, 234 St. George Street, Toronto.

Special Anniversary Issue of Journal:—The distribution date of the Special Issue of the Journal (June 1952) was advanced to be received previous to the Annual Meeting. This book is made up of summary articles on the development of dentistry in Canada. The cover is in keeping with the Golden Jubilee Anniversary and the colours used are those adopted for the Association at the last Annual Meeting. This issue has been distributed on a broad basis to prominent members of the dental profession whose names were submitted by National Dental Associations of the various countries of the world.

NEWS FROM THE PROVINCES

BRITISH COLUMBIA

The Executive Committee of the **British Columbia Dental Association** received a report from its member on the coordinating committee for Civil Defence, stating that 28 first aid stations would be established in the province. The recommended personnel calls for four dental officers for each station. Civil Defence programs are developing rapidly throughout the province, and it is vitally important that members of our profession offer full cooperation in any programs that may be set up in this highly vulnerable part of the Dominion.

Plans for the next Canadian meeting of the Pacific Coast Dental Conference, to be held under the sponsorship of the Alberta Dental Association, brought forth the proposal that the Conference be held at Banff. The Executive Committee of the B.C. Dental Association concurred with the suggestion.

Approval was given to the proposal of the Dental Public Health Committee of the British Columbia Dental Association that efforts be made to organize a clinic on Preventive Dentistry, to visit various centres in the province, outside of the larger metropolitan districts.

The final meeting of the spring term of the **Vancouver and District Dental Society**, as usual, set aside professional activity, and enjoyed an address by a prominent speaker on international affairs. Professor F. H. Soward, Director of International Studies at the University of British Columbia, spoke on "The Commonwealth Countries in a Two Power World." His lecture reflected personal experiences, as well as the facts of the situation.

Elections, held at the business session of the meeting, resulted in the following slate of officers for the Vancouver and District Dental Society for the year 1952-53:

President, Dr. John McG. Wark; President-elect, Dr. G. I. Creasy; Secretary-Treasurer, Dr. Richard Cline; Board of Directors for two-year term, Dr. M. Natch, Dr. L. W. Beamish; Board of Directors for the one-year term, Dr. W. H. Warren, Dr. Chas. M. Whitworth.

The Annual Golf Tournament of the Vancouver Society was held at the Golf and Country Club at Burquitlam. Dr. Alex Dobbins, of Vancouver, took the low gross, and Dr. J. A. Folkins the low net. Doctors A. Campbell, Ross Gifford, Bill Chambers, A. Kane, and M. Nicholson also figured in the prize list.

Upon completion of present plans, the **Department of Preventive Dentistry of the Provincial Health Services** will have 14 complete sets of the transportable equipment on hand. Seven of these sets are now allocated, on full time services, to Local Health Units. One set is on permanent loan to the Prince Rupert Health Unit, for use by a private practitioner at Terrace. This dentist regularly visits the remote communities of that district, to provide dental clinics for the younger children. A similar set is in use for similar purposes, in the Sloan area. A pool of five additional units is available for loan for short periods this summer, for dentists visiting remote areas elsewhere in the Province.

Government dentists carrying services to the young children in remote areas of the Province are frequently called upon to give emergency relief to older patients in districts where dental services are not available to them. Such relief is given without charge.

At the final meeting of the spring term of the **Fraser Valley Dental Society**, the newly elected president of the Vancouver and District Society, Dr. John Wark, was the clinician. His subject was "Hydrocolloid Technique for Indirect Inlay Preparations."

Election of officers resulted in the appointment of Dr. Jack Penzer, of

Langley, as President, and Dr. Jack Rife, of Cloverdale, as Secretary. Dr. A. H. Patterson, of Abbotsford, was appointed to represent the Society on the Executive Committee of the British Columbia Dental Association, and Dr. Lucas, of Abbotsford, will fill the vacancy created by the resignation of Dr. W. McPhail, of White Rock, on the Dental Public Health Committee of the B.C. Association. Dr. McPhail has closed his private office, to take a position with the Department of Preventive Dentistry of the Provincial Government. L.G.R.

ALBERTA

The University of Alberta Convocation was held on May 15. There were twenty-seven graduates in dentistry including two displaced European dentists from Latvia and Lithuania. The home province of the others was as follows: Alberta 15; Saskatchewan 4; Manitoba 1; and British Columbia 5.

John Friesen of Herbert, Saskatchewan, led the class in scholastic attainment with first-class general standing. This represents an average of 80% over the four years of the course. He also won the Alberta Dental Association prize and the Plaque of the Alpha Omega Fraternity. John Donald Line of Granum, Alberta, won the award of the American Academy of Dental Medicine.

W. Scott Hamilton.

At the Annual Meeting of the **Edmonton and District Dental Society** the following officers were elected:—President, Dr. W. A. McIver; Vice-President, Dr. W. Orobko; Sec., Dr. R. H. Blaquiere; Treas., Dr. E. Wilkinson; Social Convener, Dr. B. J. Eastwood; Directors, Drs. Cameron, G. H. Brown and S. D. Fraser. Edmonton Journal.

Dental Hygiene Bursaries Offered:—Three bursaries for a two-year course in dental hygiene are being offered by the Saskatchewan Department of Public Health. The course will lead to diplomas as graduate dental hygienists and are available at the Univ. of Toronto and in the U.S.A. They commence in September and require at least grade 12 with emphasis on the sciences—Saskatoon Star-Phoenix.

MANITOBA

The Winnipeg Dental Society concluded its 1951-52 clinic season with a business meeting on April 23 for the purpose of appointing the "Joe Boys" who comprise the Executive for the 1952-1953 season. This gives the new executive five

months to arrange a program which will, if possible, equal and surpass the program just completed. The new men have something to shoot at. The several clinicians of the past winter were hard to beat and the educational opportunities afforded were a real privilege of which to take advantage. The attendance was surprisingly good; surprising to the clinicians too. We have about 200 dentists in greater Winnipeg and of this number only about 40 did not join the Society. Why? Not too old surely! No dentist is too old to improve his knowledge just for his own satisfaction. Too hard up? Too hard up to attend movies? Think it over.

The new executive is President, Frank W. Jones; Vice-President, A. V. Johnson; Secretary-Treas., Zeck Kasloff; Chairman of Clinics Committee, Terry Cooke; Committee at large, W. Gordon Campbell and W. Grenkow. J. F. M.

ONTARIO

The Eighty-Fifth Annual Meeting of the Ontario Dental Association was held in Toronto on May 11-14. Attendance at the meeting was almost a record. Arrangements, as usual, were of a high order for which credit goes to president Dr. W. K. Prendergast and Convention Chairman Harold Shepherd for their leadership and to various committees for carrying out their assigned responsibilities. The compensation for nights and days of planning and work is a realization of a job well done.

Here and there in the lobby of the hotel little groups gathered to renew acquaintances, discuss problems and comment on some phase of the program they particularly liked.

The Sunday evening concert, arranged by Dr. Victor Large, won high praise. It was good music and the patronage of this program grows larger every year.

The luncheon speakers were of the highest calibre. It was heart-warming to hear Mr. Don Henshaw, a native of Florida, now a Canadian citizen by choice, speak with inspiration and such sincerity about the meaning of Royalty to Canadians and of the great leadership shown by our late King George VI which won for him our devotion and the admiration of the people all over the world. Then his kindly reference to our young Queen, with all her talent and natural charm! She has already won our love and devoted loyalty.

Dr. R. G. Ellis, Dean of the Faculty of Dentistry, Toronto, was the other luncheon speaker. The comment of a dentist leaving the hall summed it up by saying

—"That was a great address by a man who is going places." He had no reference to the Dean's contemplated trip around the world.

Another speaker who left his hearers thinking was Mr. C. B. Routley who addressed a breakfast meeting of dentists interested in public health. His subject was "An Educationalist Looks at Dental Public Health." He had a big audience at 8 o'clock in the morning which speaks for his message. There were many other outstanding speakers and lecturers.

Dr. Gordon Nikiforuk discussed "Dental Caries: Cause and Prevention." His clean-cut presentation was well received but the problem of prevention remains much the same. "Good nutrition," he said, "was the most important single factor. Good food to build stronger teeth and less fermentable carbohydrate to control the caries factor." In discussing accepted methods of prevention he mentioned three: reduction of sugar intake, good oral hygiene properly timed, and fluoridation of water supply or topical application. He emphasized the need for further research.

Dr. Edward C. Thompson of Urbana, Ill., lectured on "Oral Surgery." In a quiet, capable and different manner of presentation, he made many friends. He made two observations of interest to every dentist. Leukoplakia developing in older patients should not be neglected. If use of tobacco is the probable cause it should be discontinued entirely. Chronic irritations should not be neglected because there is a possibility of such lesions breaking down and becoming malignant.

Dr. Walter C. McBride presented a lecture on "Dentistry for Children." He stated that his hygienist was able to take over enough of his regular duties to allow him to see one-third more patients in a year. He also spoke of the necessity to keep some time each day free for emergencies. He suggested 4 to 5 o'clock at the end of the day. If no emergencies, go home—not a bad idea. Parents are becoming educated to the value of dental care for children. The next step is not too far to go—it is unfair to child and dentist to insist on dental service for children to be given at the end of the day when both are tired.

It is perhaps unfair to pick out any individual on a dental program without mentioning all—but this is not possible. It is not any one address or clinic that makes for a good convention; it is the sum total of all contributions. If we pick up a couple of ideas that can be put to work for us, we are amply repaid for our attendance.

Then there are other things—opportunity to talk things over with others, perhaps get a new perspective. A chance to see the dental exhibits, so much that is new in dental materials and equipment and learn about their possible uses. The convention too is a holiday, at least a change in environment; all of which gives us fresh incentive. Sometimes there is a special occasion like class 2T2 and its thirtieth anniversary party celebrating graduation. Everybody was talking about it as something to remember.

Wouldn't it be a wonderful idea if every dentist in Ontario, about 2000 of us, would make a New Year's resolution next January 1. "I am going to the convention this year!" There are a lot of good fellows whose faces you never see. Let's all make it a date now. T.R.M.

A signal honour was conferred upon **Dr. Harry M. Jolley** recently, when he was elected the **National President of the Alpha Omega Dental Fraternity**. To mark the event a testimonial dinner was tendered him at the Royal York Hotel, by the Toronto Alumni Club.

In assuming this new responsibility, Dr. Jolley has established a precedent as the first Canadian so designated in the history of the Fraternity. The magnitude of his task may be conceived by the realization that his administration covers 7500 Jewish dentists in seventy-one chapters in the United States and Canada. This number is exactly one and a half times the total registration of the Canadian Dental Association.

Harry was born in Toronto in 1910, receiving his early education there, and graduating from Jarvis Collegiate in 1925. He was graduated almost at the top of his class in dentistry in 1930, becoming interested almost immediately in the practice of pedodontics. He pursued post-graduate study with Bierman in Minneapolis in 1933, and with the University of Michigan in 1949. He has written and presented papers in Canada and the United States. With the exception of the years served in the Dental Corps, his practice has been located in Toronto.

During the early years in practice he held minor positions in the Alpha Omega Fraternity. When war was declared by Canada, he was responsible for the resolution introduced at the Fraternity Convention in the United States, which resulted in the presentation of a mobile dental unit, to the Canadian Dental Corps in 1942. With the same zeal he sponsored the project which donated two ambulances to the United States Government on their entry into the war. He was enthusiastic about the Alpha Omega Cephalometric equipment donated to the University of Toronto through the Faculty



DR. HARRY M. JOLLEY

of Dentistry. He was in the forefront of the activities resulting in the establishment of a Student Loan Fund, a Rehabilitation Fund for returned veterans in need, Aid to Israel Fund which raised about a half million dollars in dental supplies. And finally, he was a staunch advocate for the creation of a research department at Brandeis University outside of Boston, and a Faculty of Dentistry at the Hebrew University in Jerusalem.

In September 1940 Harry joined the C.D.C. Company 23 as a lieutenant, eventually reaching his majority overseas. He served firstly in the war theatres of England, North Africa, Sicily and Italy. After a short sojourn in England he served again on the continent in France, Belgium, Holland and Germany, returning to London, England as head of the Canadian Military Headquarters Clinic in 1945.

During his active career in service, he was mentioned in despatches, awarded the honour of Member of the British Empire, and was the recipient of the Commander-in-Chief's Certificate of Efficiency.

From 1947 to 1949 he was the Editor of the Alpha Omegan, the quarterly publication of the Alpha Omega Fraternity. It was under his guidance and perseverance that the journal was changed from the status of a social organ, to the scientific creation that it is today. He was instrumental in obtaining many outstanding members of the profession as original contributors to the periodical.

While Harry is a quiet, retiring, modest individual, he displays sufficient determination to complete successfully any assignment which he accepts. He has renewed old friendships, and created new ones in his travels to Baltimore, Montreal, New York, Cleveland, St. Louis, Detroit, Chicago and Hartford. He has still two months to complete the first half of the year, after which he will cover Western Canada, the West Coast to Los Angeles, the midwest and the deep South. By the time the Annual Convention is held in Toronto in December, Harry will have covered more territory than any goodwill ambassador that Canada might have selected.

The Alpha Omega Fraternity is to be congratulated on the calibre of the man chosen to lead them during 1952.

W. W. Breslin

Dr. G. Harrold Campbell was elected an honorary life member of the Ontario Dental Association at its Annual Convention in May. The Membership was presented to him by his old friend and classmate, dean emeritus Arnold Mason. This honour has never been bestowed on a more deserving member of our profession, for surely the recipient has lived a life of service both to his profession and his community.

In accepting the coveted certificate of membership, Dr. Campbell in his own quiet, humble way suggested a few truths that might well be repeated. He said, "There is nothing so satisfying in life as accomplishment, for your patients, for your community and for your profession. . . . Attendance at our dental meetings brings wonderful friendships among your colleagues and this has been inspiring to me. . . . Our meetings keep you up to date in what's going on in dentistry too. . . . You know, he continued, "I have often thought of the opportunities a dentist has who practises in a large centre like Toronto—close to the university and the privilege of study groups and so forth. Then I think of the dentist in the smaller centre, where he knows all the people, and has a chance at real leadership. As I see it, after all these years if you really want to live your life in its full measure, the small community has wonderful opportunities."

Dr. Campbell has an exemplary record of service both as a citizen and as a dentist. He is a fourth generation descendant of Campbells in the town of Orangeville. He has served on the town council in many capacities, on the High School Board and as Hydro Commissioner for 20 years. He was the first president of the Dufferin Simcoe Conservation Association and has been keenly

interested in reforestation since 1912. Dr. Campbell's modesty restrains him from talking about many other activities to which he has contributed.

In dental circles, he graduated in 1902 and was president of Student's Parliament in his graduating year. He was a member of the Ontario Dental Association Board of Governors for many years and was president of the Association in 1939. He was a director of the Royal College of Dental Surgeons of Ontario for 10 years and was chairman in 1946. He was a member of the Board of Governors of the Canadian Dental Association for many years and sponsored the resolution which began the present relationship of the Canadian Dental Association and the provincial legal bodies. He was a member of the Dominion Dental Council of Canada for eight years and was always active in his own community society of Grey-Huron-Bruce.

Such is the record of Dr. Harrold Campbell of Orangeville; surely an enviable one. In electing him as an honorary life member, the Ontario Dental Association has recognized the efforts of a man who has given his life to leadership and has brought honour on itself.

The Ontario Health Survey Committee has released its findings relative to dental services and facilities for dental care in Ontario. The committee reports a shortage of dental personnel in the province particularly outside the larger cities. It also reports inadequate training facilities for young dentists and recommended that present number of graduating students be doubled; this means a new and larger building in Toronto or a second school somewhere else in Ontario. This matter is urgent because the committee noted that nearly one-half of the practising dentists in Ontario were 50 years of age or over.

Favourable comment was expressed respecting the training of dental hygienists. This is a new two-year course instituted in Toronto this year for young women. When they graduate they will be capable of doing dental health education, x-ray and prophylactic services under supervision. This will relieve the dentist for other services.

In an effort to obtain some data on dental care for children, a study was made of 80 rural public schools and 14 urban centres. Of the 19,361 children examined, 85% of urban children and 92.9% of rural children had dental defects. In one remote northern area 71% had never visited a dentist. The committee noted improved dental health in areas where an organized dental health program was in operation and recommended the extension of such programs

as rapidly as possible. The bottle-neck seems to be trained personnel to provide both dental health education and services.

The Ontario Dental Public Health Council breakfast meeting was held at the Royal York Hotel on May 12. There must be something in Dental Public Health that will cause nearly 100 dentists to get up for an 8 o'clock meeting on the first day of convention.

After grace and "The Queen" Dr. Bruce Johnston of Barrie, chairman of the meeting, welcomed those present. Dr. S. L. Woodger gave a report on the excellent progress of dental activities in the Barrie area sponsored by the Lions Club. Dr. Harold Craig, Belleville, was elected chairman of next year's Breakfast Meeting. Dr. S. A. MacGregor introduced the speaker of the morning, Mr. C. B. Routley, Assistant Superintendent of Elementary Education of the Department of Education for the Province of Ontario, whose subject was "An Educationalist Looks at Dental Public Health."

The speaker had a surprising knowledge of the problems that face the profession. He compared the diet of a child of 50 years ago to that of today, noting the increase in the consumption of sugar and also the increased amount of dental disease. He pointed out that 1600 pupils in the Province of Ontario were absent from school daily due to defective teeth. There were more days lost by retarded pupils due to lower standards of living in the home. He suggested that more stress be placed on health or that a better balance in health teaching be maintained on the school program. It is more important to have a healthy child than a smart child. The Junior Red Cross was attempting, by its program, to teach that the best health habits are the normal health habits.

He emphasized the need for education of the dentist, and a program for parents; pointing out that the sugar intake should be decreased; eating habits should be improved and that the teaching of good dental habits should not be confined within the school but should be extended to cover the surrounding areas. Dr. R. R. Butler thanked the speaker on behalf of those present. E. A. White

News items of interest from the **Faculty of Dentistry, Toronto**, staff letter are as follows:

Dr. R. E. Moyers and Dr. S. A. MacGregor were guests of the Massachusetts Dental Society, Boston, on May 5, 6, 7.

Dr. W. G. McIntosh lectured before the Cleveland Dental Society at Cleveland on May 6.

Dr. R. E. Moyers attended the Third

Mid-Atlantic States Seminar at Sky Top, Pennsylvania, on May 11-16.

Dr. J. H. Johnson was guest at Vermont Dental Society, Woodstock, Vermont, on May 20.

Dr. W. G. McIntosh attended the Southern Academy of Periodontology at Asheville, North Carolina, on May 26, 27.

Dean R. G. Ellis has been invited to act as external examiner at the Annual Examinations of the Faculty of Dentistry, University of Malaya, June 12-26.

Dr. G. T. Mitton attended the Canadian Public Health Association meeting in Winnipeg June 15-18.

Dr. J. H. Johnson attended the conference on Dental Nomenclature of the American Dental Association at Chicago, June 19 and 20. Dr. Johnson will also appear as guest before the Dublin Dental Association in Ireland on July 14-16.

Participating on the program of the **Eleventh International Dental Congress** in London, England, on July 19-26 will be: Dr. S. A. MacGregor, Dr. J. H. Johnson and Dr. R. J. Godfrey. Dean Ellis, Dr. D. W. Gullett and Dr. P. G. Anderson will also attend.

During the past session 12 short courses have been conducted for graduates in dentistry. A total of 147 dentists took advantage of one or more of these courses which indicates the popularity of courses in filling a need for graduate instruction.

Newly Elected Officers of the Ontario Dental Association for 1952-53 are: Hon.-Pres., Dr. W. K. Prendergast; Pres., Dr. R. G. Woods, Watford; Pres.-elect, Dr. J. H. Johnson, Toronto; Historian and Archivist, Dr. G. V. Morton; Sec.-Treas., Miss Dorothy Jutton.

Councillors: Drs. L. R. Braden, Ottawa; C. L. Strachan, London; J. H. Boyd, Stratford; H. R. Bateman, Mount Dennis; F. H. Shepherd, Toronto; K. M. Phillips, Welland.

Public Health Committee: Drs. A. W. S. Wood, R. R. Butler, H. A. Swales, W. J. Dunn, E. R. W. Bilkey, J. B. Macdonald, A. J. Vince, E. A. White and S. T. Peterkin.

The **Junior Red Cross, Ontario Division of Canadian Red Cross** have presented a gift of \$15,000.00 to the dental department of the Hospital for Sick Children. In acknowledging the gift, Dr. S. A. MacGregor, director of the department, said it would be used to increase the dental services for crippled and handicapped children at the hospital.

The **Ladies' Auxiliary of the Hamilton Dental Association** held its annual meeting on April 3 with president Mrs. F. O. Whetham presiding. This newly formed

organization has completed its first year with honours. It raised funds to purchase a **Wheel Chair** and a **Castle Light** which it presented to the dental clinic at the Hamilton Sanitarium. The Auxiliary has a membership of about 60.

New officers for the coming year are: Mrs. A. H. Leckie, President; Mrs. D. E. Shultis, Vice-Pres.; Mrs. P. Smylsky, Rec.-Sec.; Mrs. Warren Morley, Cor. Sec.; Mrs. J. G. Countryman, Treas.

The Ladies' Auxiliary of the Academy of Dentistry has conducted another satisfactory year of service. At their final meeting it was announced that a cheque for \$805.00 had been turned over to the faculty of dentistry for treatment of needy children with dental abnormalities. This brings the total contribution to date to nearly \$2,500.00.

Mrs. Harold Skilling presented the retiring president, Mrs. H. J. Shepherd, with a past president's pin on behalf of the members. Mrs. I. E. Verth is the new president and associated with her on the 1952-53 executive are: Vice-Pres., Mrs. W. L. McMachen; Rec. Sec., Mrs. H. K. Box; Treas., Mrs. G. R. Stinson; Counsellors: Mrs. J. A. Bigelow, Mrs. Gordon Chalmers, Mrs. E. Downton, Mrs. J. D. Evans, Mrs. H. E. Leyland, Mrs. W. G. McIntosh and Mrs. W. C. McLean.

QUEBEC

Tissues and the Partial Denture was the subject presented by **Dr. A. F. Cameron** to the members of the **Montreal Dental Club** at its final meeting for the season held April 21, in the Queen's Hotel, Montreal.

Introducing his subject, Dr. Cameron stated that as we are dealing with living tissues, we must understand the principles underlying the reactions of the periodontal tissues to the partial denture; and that as we are creating an appliance which will exert external forces on the alveolar bone either through tooth borne or tissue borne sections, or both, we must realize that we are setting up within the bone internal resistance forces which are called stresses.

Dr. Cameron proceeded to explain how function is necessary for the maintenance of alveolar bone; how the architecture of this bone is dependent upon the external forces exerted upon it; and how it is capable of adaptation to increased functional demands. He also stated that in addition to a subservience to functional changes the maintenance and adaptability of the alveolar bone is dependent upon the physical condition of the patient; and most important that axial overloading is comparatively well

tolerated while severest changes in the alveolar bone arise from increased lateral or rotational forces on the abutment teeth.

With these basic considerations firmly planted in the minds of his audience, Dr. Cameron proceeded to discuss and illustrate several practical cases. Illustrating the common type of rest used on the margin of a bicuspid or molar tooth, he showed that this obviously results in an undesirable lateral stress being exerted but that this could easily be overcome by placing rests on both the mesial and distal so that the resultant of these forces is applied along the line of the long axis of the tooth.

Discussing the common spring clasp, he showed how the tightening of this clasp merely results in the extrusion of the tooth in question; to obtain additional retention, then, merely requires the lengthening or lowering of the clasp. One of the commonest causes of loosening of a clasped tooth when to all intents and purposes the case is well designed and very stable when in position, is the movement which takes place in the tooth every time the so-called spring clasp is placed over it; instead of the clasp springing upon insertion of the denture, what really happens is that the tooth moves instead. To overcome this problem, Dr. Cameron described a simple but ingenious method using the pre-insertion position as his starting point; the minor connectors of the occlusal rests are rigid bars which contact the tooth prior to contact of the clasp and during the whole path of insertion; thus when the spring clasp contacts the tooth, it springs over it without the latter moving. He stresses, of course, that nothing touches undercut areas of either tooth or gingivae except the retentive clasp.

With regard to teeth out of function for some time, the speaker suggested relieving under the major connector in such areas as the tooth will be compressed resulting in the strangulation of the soft tissues.

Proceeding with an actual case, Dr. Cameron suggested the use of a large round diamond for the rest areas making sure that the marginal ridges are well rounded. The impression that follows should be accurate as regards the teeth and the surrounding areas.

Following the pouring of the model, the soft tissue to be covered is outlined in wax which is then removed, flattened, and a piece of Ash's No. 7 metal is cut out to the exact size and placed on the model. This is now mounted for surveying and the path of insertion determined by the line of the long axis of the teeth. The case is now surveyed as previously

described, but also taking into consideration any undercut areas where the major connector is to be placed — be the latter lingual bar or plate.

When the case is completed, the soft metal is now removed and an oil impression paste inserted in the saddle areas; this is now placed in the mouth and held in place by the dentist by means of the rests, bar, etc.; the patient should not close or apply pressure on the saddle area. Once the material has set, pressure on the saddle area should not move the denture; if it does, however, then the relining impression should be taken again. The case is now processed and the occlusion adjusted.

Approximately 70 members of the Club were in attendance to hear Dr. Cameron's fine presentation. The meeting was presided over by the President, Dr. Les Martin, who introduced the speaker. Following an interesting question period, Dr. Cameron was thanked by Dr. D. Dagg.

R.F.H.

Dr. J. P. Lantier was elected President of the **Montreal Endodontia Society** at the annual meeting held April 28 in the lecture room of the Dental Faculty, McGill University. Other officers elected were: Honorary President — Dr. Ralph Somer; Vice-President — Dr. G. Zimmerman; Secretary-Treasurer — Dr. G. S. Veith. Prior to the election of officers, the retiring President, Dr. Walter S. Phelps, presented his report on the year's activities. This was followed by the financial report of the Secretary-Treasurer, Dr. George Zimmerman.

Following the business meeting, the guest speaker, Dr. B. B. Raginsky, spoke on the Psychosomatic Aspects of Dentistry.

Discussing hypnosis, Dr. Raginsky who has wide experience in the field of psychosomatics and is also internationally known in the field of hypnosis, referred to it as a psychological scalpel which one uses to cut through the patient's resistance. He also called it a psychological microscope, a hammer with which to drive home suggestions to the patient and a psychological suture. The act of hypnotizing an individual, he claimed, could be learned by the average individual in a few minutes, but he warned against its indiscriminate use without several years of thorough training due to the real dangers encountered in the post hypnotic period when proper post-hypnotic suggestions have not been carried out.

With regard to the pain threshold of different individuals, the speaker suggested simple tests which could be carried out in advance of any operation to

determine whether the patient is hypersensitive or not.

One of the principle factors in the field of psychosomatic medicine stated Dr. Raginsky is the inner passivity, or fear of all that we face in life that is present in every one of us. To acknowledge this, and to willingly accept help, is a very important step in overcoming this problem. The child, for example, may be afraid of many things; if he is guided through his troubles at this stage, all may be well; if this is not done, however, then as an adult he will continually run around all problems.

Again he suggests that there is a frantic pseudo aggressive defence that we all possess and in those who do not recognize this factor, we invariably find a psychological problem in as much as it is impossible to discuss anything with them without a definite argument ensuing. Hypnosis is an invaluable aid in overcoming both these problems in the adult.

Dr. Raginsky's pleasant manner of speaking made his short presentation one of the most interesting the Society has heard in some time. Dr. Louis Rosen introduced and Dr. Vincent Tremblay thanked the speaker.

A general meeting of the **Mount Royal Dental Society** was held April 15, 1952. Following completion of business, the latter part of the evening was given over to an address on "**Full Denture Prosthesis**" by **Dr. J. Fineberg**.

Dr. Fineberg is on the staff of the Faculty of Dentistry, McGill University and has devoted much time to the problems of Prosthetic Dentistry. He made particular mention of the importance of a careful approach when first suggesting the necessity of extractions and the insertion of dentures and then advocated a full-mouth radiographic survey as well as a thorough physical examination. Where possible, pre-extraction records should be obtained, and surgical preparation made where required.

Dr. Fineberg then elaborated on the essential features of a good impression, insisting that it be boxed for pouring and emphasizing in base-plate construction the need for extreme accuracy. The speaker then went on in his discussion on bite-taking, dwelling on centric and freeway-space, phonetic tests at try-ins and concluded by mentioning important points in setting up of teeth, stressing at the same time the use of the face-bow and the milling-in of the dentures.

Succeeding an active question and answer period, Dr. B. Hyams thanked the lecturer and expressed the appreciation of the meeting for a well-thought-out and well-delivered talk. S. Silver

Dr. D. T. Shizgal was elected president of the **Mount Royal Dental Society** at the annual meeting held in May, 1952. Other officers elected were—Dr. R. M. Weiner, Vice-President; Dr. I. B. Hyams, Secretary; Dr. S. Silver, Treasurer; Dr. A. W. Bazerman, Ass't Secretary; Dr. S. Her-shon, Historian-Archivist; Dr. Marcus Star, Immediate Past President.

Members of the Executive:—Dr. A. Colle, Dr. B. Mendel, Dr. J. S. Gruman, Dr. I. N. Pesner and Dr. M. Lang.

Honorary life memberships in the Society were conferred upon Dr. A. S. Solomon, Dr. N. Titleman, Dr. F. Mendel, Dr. H. M. Halperin, Dr. H. H. Pearson, Dr. J. Rosen and Dr. L. Schacter.

I. B. Hyams

The Third Annual Staff Dinner Meeting of the Faculty of Dentistry, McGill University was held on May 20, 1952, in the Faculty Club with more than 40 members of the staff in attendance. The chairman of the evening, Professor Gerald Franklin made a strong plea to the members of the staff to place their observations, unusual cases and research in writing and to approach the Provincial Editor of the Journal so that not only others might profit by their experiences, but that they themselves might gain thereby. He also urged any interested to work towards provincial certification in his own specialty.

Following the showing of a fine film on "Excision of the Gingivae" from the faculty library, Dean D. P. Mowry addressed his staff. Strongly endorsing the chairman's remarks, he proceeded to give a review of the activities and accomplishments of the Faculty during the past term and discussed the program and desires for the coming year.

The Dean was followed by the Chairman of the Building Committee, Dr. W. F. Walford who showed the final plans for our "new clinic" which will be completed in approximately two years.

As has been previously reported, this will be equipped with 39 chairs to accommodate 35 students, but designed in such a manner that it may be enlarged as required.

A short summary of the current research being carried out in the Faculty by Drs. R. Edmison and E. Gill was presented by Dr. A. G. Racey who reported that the normal time of 8 weeks required for decalcification of specimens had been reduced to 36 hours.

As had been requested the previous year, Dr. J. Abraham reported briefly on the present course in Office Management. Discussing dental fees, he stated that the comfort, happiness and esteem to which we all aspire, is dependent upon the patient's own evaluation of their dental health and that therefore, it is up to the dentist to train his patients accordingly.

During the general discussion which followed, Dr. Donigan reported upon the gratifying results being obtained from the Faculty's aptitude tests and stressed that the main objectives sought for were to eliminate at an early age, all those who would not be happy in the practice of dentistry.

Prior to the closing of the meeting, the thanks of all were extended to Dr. Jim McCutcheon who had the thankless job of making all the preparations for such an evening.

R.F.H.

NOVA SCOTIA

At the annual meeting of the **Halifax County Dental Society** held May 15 the following officers were elected: President, Dr. John Merritt, Halifax; Vice-President, Dr. K. M. Kerr, Bedford; Sec.-Treas., Dr. W. M. MacNeil, Halifax; Executive Member, Dr. Gordon Caldwell, Dartmouth.

The guest speaker was Rev. Harry Rackham, Fairview United Church who spoke on "Some Experiences of a Parson."

Halifax Chronicle-Herald.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

The Dentists' Bill having been passed through all the stages in the House of Lords is now awaiting the Second Reading in the House of Commons.

During the passage of the Bill through the House of Lords various amendments were introduced into the Bill which, although they by no means remove all the fears of the profession as to the effect of the Bill, go some way towards modifying its most objectionable features. One of the principal amendments they succeeded in incorporating in the Bill was

the substitution for the direct requirement that the General Dental Council should institute an experimental scheme for the training of ancillary workers to undertake fillings and extractions, of one that the Council shall only be required to do so if the Privy Council, after consultation with them, are of the opinion that such an experiment should be set on foot. Under another amendment, it is now laid down that if the General Dental Council make regulations authorizing the training of ancillaries, nothing must be done that will "materially im-

pair the facilities for the training of dental students existing at the passing of this Act." This latter amendment has only a negative value and fails to meet the objection that the provision of staff, buildings and equipment for the training of ancillary workers will probably entail further postponement of the overdue expansion of the dental schools. The first amendment, if at first sight it may appear to be one of wording rather than substance, removes from the Bill the anomaly that a professional body such as the General Dental Council should be required to conduct a specific experiment of which they might conceivably disapprove, without being accorded an opportunity of stating their views.

It is difficult to believe that if the resources of man-power and materials, which it is suggested should be devoted to the training of ancillary workers, were instead directed towards increasing the output of fully trained dental surgeons, the end in view could not be at-

tained more economically and scarcely less speedily. It must always be remembered in this connection that the training of ancillaries is a long, rather than a short, term policy.—From Editorial in Br. D. Jour. May 6, 1952.

IRELAND

National Health Insurance:—Health Insurance is compulsory for all employed persons between 16 and 70 years of age with certain exceptions—public servants, non-manual workers earning at a rate in excess of £500 a year, certain casual workers, etc. The Scheme, which is administered by the Department of Social Welfare, is based on weekly contributions divided . . . between the insured person and his employer . . . The State also contributes to the Scheme.

Benefits are not payable unless a certain number of contributions have been paid.

GENERAL NEWS

Fluoridation Defeated in Seattle:—

Fluoridation of domestic water supplies for the city of Seattle was defeated in a referendum last Tuesday (March 11). Residents of the west coast city voted 86,230 to 44,814 against the measure in the city's municipal elections. The referendum in the city of 460,000 persons climaxed a stormy campaign of opposition led mainly by health faddists and religious groups. The usual charge of "mass medication" was augmented by charges of "socialized medicine," "Nazi experimentation on humans," and threats to the American way of life. The city was blanketed with pamphlets that attributed to fluorides a multitude of ailments ranging from "cavities in head bones" to "irritability," "undue financial anxiety," "loss of memory," "satyriasis" and "nymphomania." Longtime Seattle residents said the campaign was one of the most heated political issues in the history of the city. The sudden opposition characterized by freely-circulated false charges was viewed by observers as the basic weakness in submitting to an electorate a scientific health measure whose benefits could scarcely be weighed by untrained lay persons—persons whose very lack of knowledge would make them open to exploitation by self-seeking groups. Fluoridation was actively supported by the Washington State Dental Association, the Seattle District Dental Society, the county medical society, the Parent-Teacher Association and many other civic groups. The Seattle referendum was a reverse performance

of the referendum held last November in San Francisco when the city of 800,000 voted 114,125 to 88,377 in favour of the public health measure. — A.D.A. News Letter.

President Truman has created a fifteen-member commission "to determine, within a year, **The Nation's Total Health Requirements** and to recommend ways for meeting these needs in both the immediate and distant future." Although the compass of a twelve-month period may set too sharp a limit on such a vast undertaking, much of the material must be available and ready for evaluation; in any event a plan like this, sincerely conceived and properly executed, merits the most respectful consideration, as should any plan designed to improve the nation's health. The value of any such enterprise must obviously depend first on the sincerity with which it is proposed,—and this should be above question,—then on the character of the personnel selected to carry it out and finally on the acceptance and implementation of its recommendations.—N.Y. Univ. Jour. of D.

University of Illinois Telephone Extension Course:—The fourth annual series titled "Current Advances in Dentistry," emphasizing material of benefit to the general practitioner, will be offered monthly starting next November by the University of Illinois College of Dentistry.

Twenty-nine prominent dental practitioners and scientists have been selected

to serve as the faculty for the series of five programs which will be transmitted by telephone from Chicago to dental societies and study clubs throughout the United States and Canada.

Subjects for the 90-minute presentations and dates are as follows:

Exodontia	Nov. 10
Dental Materials and Therapeutic Aids in Every-day Dentistry	Dec. 8
Removable Partial Denture Prosthesis	Jan. 12
Treatment of Periodontal Disease	Feb. 9
Developmental Anomalies in Dental Practice	Mar. 9

International College of Dentists:—

The following were made Fellows of the International College of Dentists on June 14 at the Vancouver meeting: Dr. John A. Chambers of New Westminster, B.C.; Dr. Arthur Poyntz, Victoria, B.C.; Dr. W. Gordon Campbell, Winnipeg, Man.; Dr. Johnston W. Abraham, Montreal, P.Q.; Dr. Arthur L. Walsh, Montreal, P.Q.; Dr. A. Wright McClelland, Montreal, P.Q.; Dr. A. Gerald Racey, Montreal, P.Q.; Dr. H. S. Crosby, Halifax, N.S.; and Dr. Heath McIntyre, Charlottetown, P.E.I.

The Mayo Clinic reports in the April 9 issue of the Proceedings of the Staff Meetings that only 14 of 100 patients diagnosed to have a **Gastric Malignant Lesion** will be living five years later. Of the 86 not living 20 would be judged inoperable on physical examination. 36 lesions would be found not resectable at laparotomy, 4 would die in hospital and 26 would die during 5 years following operation. However, in the period 1907-16 only 5% would be living in 5 years as compared with 14% in 1940-49.

It is further stated that if the 56 patients who are not amenable to surgical treatment should come to the surgeon in a respectable state, then without any improvement in the surgical results over those existing at present, there would be 18 more survivors added to the present 14, more than doubling the number salvaged out of the original 100.

Absenteeism caused by dental pain can be prevented declared Dr. J. M. Dunning of the Harvard School of Dental Medicine at the Industrial Health Conference at Cincinnati April 23. He stated that dental absences are preventable in a very large proportion of cases, and that relief emergency service in one industrial plant returned to work over 85% of the employees seen at the dental clinic.

"With the chair time needed to secure

relief for these cases taking approximately 10 minutes each," he said, "it is obvious that a dentist in a large factory can effect substantial savings in man-hours of work."

He estimated that absence directly due to dental pain constitutes approximately two per cent of all illness absenteeism, declaring that this figure does not include absences from the more remote effects of dental disease.

"Additional reductions in absenteeism can be obtained," he advised, "from a service which provides dental health education, dental examination and reference to the private practitioner of cases which require corrective or restorative dental treatment. Such a service can result in a substantial saving of teeth for the average worker, resulting in good will and better efficiency."

Say It With Flowers:—At the Medical College of Virginia Hospital friends of patients contribute \$5.00 and up towards the patient's bill instead of sending flowers. The amount given is not divulged but a card tells the patient "You are my guest for a part of your hospital visit."

The **Ford Foundation** has made initial grants of \$6,550,000 to promote rural and industrial development in Pakistan and India. Included in the grants is \$500,000 to help establish a women's college for domestic science and teacher training in Pakistan.—Science.

Auxiliary Dental Personnel: Shailer Peterson, M.A., Ph.D., Secretary of the Council on Dental Education of the American Dental Association will report at the XI International Dental Congress in July that the dental profession in the United States now has about 87,000 dentists, of which about 80,000 are in practice. Each year, there are now more than 11,000 undergraduate dental students in the schools, with about 2,600 graduated in 1950 and prospects for nearly 3,000 each year for the next few years. There are now about 8,000 dental hygienists registered in the 46 States and the District of Columbia which license these women. It is not known exactly how many are in practice but about 1,900 are members of the American Dental Hygienists Association. There are now 21 schools for the training of dental hygienists which have 2-year programs as stipulated by the Council on Dental Education's requirements. These schools now have about 1,200 students enrolled and graduate about 600 annually. There are about 18,000 dental laboratory technicians, most of whom are employed in dental laboratories. Others are employ-

ed in dental offices or serve a group of dentists. Directly following World War II, there was a great demand for this type of personnel, but it is now reported that the shortage has been filled. The total number of dental assistants is not known. Their training program or curriculum is not as well established as that for the dental hygienists and dental laboratory technicians. There are about 5,900 members of the American Dental Assistants Association and that Association has set up a course of study requiring about 104 hours.

It is being recognized by more and more dentists that the use of auxiliary personnel will increase the amount of dental service that can be rendered in any one office or by any single dentist. The education of these auxiliary aids is becoming a more important part of dental education as a whole.

•
The University of Kansas has installed a colour television system for under- and postgraduate medical instruction in its Medical Centre in Kansas City, Kan. Three direct-view receivers in as many rooms will accommodate audiences of up to 40 at each point. The sound system is two-way, so that students may ask questions of the surgeon-lecturer.

•
Survey To Measure Extent of Dental Patients' Needs in U.S.A.:— In cooperation with 25,000 selected school dentists throughout the country, the American Dental Association's Bureau of Economic Research and Statistics will conduct a survey in May on the needs of the nation's dental patients.

Questionnaires will be sent to a cross section of the profession in the United States. These 25,000 dentists will be asked to fill out reports on 10 consecutive patients who visit them on a specific day, listing each patient's number of fillings, dentures, extractions and other dental operations and treatment required.

The survey is expected to show how the dental needs of the average dental patient differ from the needs in 1940, when a similar survey was conducted.

Patients will be classified according to age, sex, approximate income level and the population of the community in which they reside. For the first time, children will be included, with a view to providing a basis for future measurement of benefits derived from fluoridation and other dental measures recently introduced.—*Jour. A.D.A.*

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Report on Fluoridation of Water Supplies:— The National Research Council, Division of Medical Sciences, Washington, U.S.A., has this to say about fluoridation of water supplies as published in

the Massachusetts Dental Society Journal of Jan. 1925.

"Under normal conditions of living, fluorine is a trace element in human nutrition; a variable and important source is drinking water. Many of the public water supplies in the United States are deficient in this element. Children dependent upon such supplies have a high dental caries attack rate as compared with children living in cities having water supplies containing about 1.0 p.p.m. of fluoride. The advantage of the latter group is considerable and is of the order of one-third to one-half as much caries. The caries-preventive effect of adequate fluoride intake is principally conferred upon children up to about the twelfth year of life, during the period when dentine and enamel of the permanent dentition are being formed. This increased resistance to dental caries is carried over into later life to an appreciable degree. The results of experimental studies conducted in the laboratory give constant support to the concept of the inhibitory effect of fluoride on the caries process. There is a safe margin between trace quantities in drinking water which are required for optimal dental health and that amount which produces undesirable physiological effects. The most sensitive indication of the latter is interference with normal calcification of the teeth, which is manifested in mottled enamel, or edemic fluorosis. This effect, although compatible with caries-resistant tooth structure and, within certain limits, apparently with physiological well-being, is aesthetically undesirable. The level of fluoride concentration in drinking water which is associated with the appearance of mottled enamel varies with individual susceptibility and with the amount of water consumed. The upper level of safety has been reached in the northern part of the United States in domestic water supplies containing approximately 1.0 to 1.5 p.p.m. fluorine, in the southern part of the country approximately 0.7 p.p.m. There is no reason to believe that prolonged ingestion of drinking water with a mean concentration below the level causing mottled enamel will have an adverse physiological effect. Progress reports in several communities in which sodium fluoride has been added to the water supplies of low fluoride content indicate that this procedure will reduce the caries attack rate in children. There is evidence to suggest that it will confer an appreciable measure of protection to the teeth of adults.

In view of these considerations, your Committee recommends that any community which includes a child population of sufficient size, and which obtains its water supply from sources which are

free from or are extremely low in fluorides, should consider the practicability and economic feasibility of adjusting the concentration to optimal levels. This adjustment should be in accord with climatic factors and a constant chemical control should be maintained. With proper safeguards, this procedure appears to be harmless."

Broken Appointments:— Dr. Leonard Simkins, a Pennsylvania dentist, has shown this sign in his office for a number of years:

*"A broken appointment injures three,
The waiting patient, yourself, and me."*

Illinois Dental Journal

Old Sol Will Burn If You Don't Take Care:— Bathing suit advertisements to the contrary, warns HEALTH magazine, all the sun that you can get is not good for you. Sunburn is what it says—a real BURN. And the tempting summer sun should be treated with just as much respect as a hot saucepan in the kitchen or a kettle full of scalding water. Sunburn can be dangerous!

Almost 1 Million Financed By Calif. Payment Plan:— During the first seven and one-half months of operation of the California State Dental Association's Postpayment Plan for Dental Care, nearly three quarters of a million dollars was financed, according to a recent announcement.

A total of 1,035 members, about fifty per cent of the membership, signed contracts to participate in the program which is handled through the Bank of America. Five per cent is withheld from the dentist's fee and deposited in a reserve fund from which all losses are paid. The report states that more than \$35,000 is now in the reserve fund and losses to date have been only \$980.62.—Jour. Oklahoma State D. Assoc.

Drs. Joseph Fiasconaro and Harold Sherman report on the **Sealing Properties of Acrylics** in the May New York State Dental Journal as follows:

"The filling materials, commonly used in operative dentistry, were tested on a comparative basis.

"In regard to cavity-sealing properties, the self-curing resins are not comparable to other dental filling materials. However, it has not been determined whether or not the consistently low pressure readings, for the resins, indicate an unsafe restorative material. The authors are presently engaged in establishing this point.

"The self-curing resin restorations reach their maximum cavity-sealing value, when immersed in water, in 48

hours. This phenomenon is probably due to water absorption. Thus it appears advisable to defer final finishing of the restoration until 48 hours after placement.

"The results obtained with the direct pressure technique show considerably greater variations than are obtained by the laminated, non-pressure method. Hence the latter produces more uniform results.

"The cavity-sealing property of the self-curing resins is directly proportional to temperature changes.

"The adverse effect of radical thermal changes upon cavity seal is most evident in restorations where acrylics are used either as the filling material or as the cementing medium."

Sodium Fluoride Tablets Rated "Inconclusive": Sodium fluoride tablets to be dispensed by prescription for use in drinking water have been placed in Group C—"products which require further study by qualified investigators"—by the Council on Dental Therapeutics of the American Dental Association. At its meeting April 4-5 in the Central Office, the Council also voted to place all other fluoride tablets in the category of "unacceptable" products.

The Council reaffirmed its position of recommending fluoridation of water supplies as a safe and effective health measure after re-examining reports on controlled studies.

Dr. Frederick A. Henny of Detroit has been appointed to a three-year term as editor of the **Journal of Oral Surgery** replacing Dr. Reed O. Dingman who has resigned. Dr. Henny is associate surgeon in the Division of Oral Surgery at Henry Ford Hospital, Detroit.

Fluorides in Table Salt:—The Journal of the American Medical Association has this to say in reply to a query about the advisability of putting fluorides in table salt:

"Caries inhibition by fluoride (about 1 ppm of fluoride) in drinking water has been studied in great detail. No comparable information is available for judging the effect of fluoride added to table salt. The known variations in the consumption of salt by different persons suggests that the latter procedure would not be satisfactory. Furthermore, many drinking waters naturally contain adequate fluoride, and the use of a fluoridized salt would be undesirable in these cases. It is more logical to add iodine to salt, because iodides have a much wider margin of safety than do fluorides. The wastefulness of adding fluoride to a water supply is more apparent than real. The added materials are readily available and

inexpensive, and also the labour involved in a carefully controlled program is negligible when computed in terms of the individual child."

Polio Protection:—The Health League of Canada points out that during a severe epidemic of polio there is only one chance in 1500 of developing polio, one in 7500 of being paralyzed and one in 30,000 of dying of the disease. However, among things to avoid during the polio season the Health League recommends that all except urgent nose or throat operations and dental extractions should be postponed until the poliomyelitis season is past.

The 1952 Industrial Health Conference met in Cincinnati for six-day conclave, April 19-24. Every phase of workers' health and safety was examined in meetings, committee reports, round table discussions, plant tours and in 140 speeches addressed to approximately 2,000 doctors, nurses, dentists, industrial hygienists and educators.

They discussed recent developments in the health and safety phases of radioactivity and radiation, toxicology, air pollution, general health testing, food and nutrition, occupational and non-occupational disability, cancer and other subjects bearing on the medical aspects of industry in its relation to the individual.

Those attending included the Industrial Medical Association, the American Conference of Governmental Industrial Hygienists, the American Industrial Hygiene Association, the American Association of Industrial Dentists and the American Association of Industrial Nurses.

Nation's teeth need 700 million fillings stated Dr. W. Philip Phair of Chicago at the Industrial Health Conference held in Cincinnati in April. Children between 6 and 18 years require 280 million of these fillings, he added.

To catch up, in a single year, with this tremendous backlog of needed fillings would require five times as many dentists as we now have, he asserted. These figures represent "a staggering amount of dental care that is needed initially" and do not include necessary extractions, bridges, crowns, dentures, examination, x-ray, cleaning, fluoride applications and other dental services.

He urged citizens groups to enlist the aid of private dentists, public health and industrial dentists, and health personnel at all government levels in starting community action programs for improvement of dental health.

In a continuation of a program begun last year, the **Fund for the Advancement of Education** has awarded fellowships to 221 men and 25 women teachers, representing 160 colleges and universities in 42 states. This year's grants total approximately \$1,500,000 and are part of the Ford Foundation's program aimed at strengthening liberal education.

Medical Service in Rumania:—The Rumanian People's Republic in organizing a socialist medical service for their people have firstly established a whole-time salaried service. Private practice is permitted and still exists, but doctors, consultants, and health workers in the service are whole-time and are paid a salary; they are not debarred however from doing private practice in their spare time. —*Medicine Today and Tomorrow.*

IN MEMORIAM

Wilkinson Foster Elliott of Toronto died at his home on April 3 at the age of 76.

Dr. Elliott was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1900. He began his practice in Toronto and for more than 40 years he has been associated with his two brothers—Dr. Alex Elliott and Dr. Orville Elliott.

Dr. "Foster" as he was widely known was a quiet, cultured and kindly man of generous disposition. He was a member of the Granite Club, being keenly interested in curling and lawn bowling there. He was a member of Harcourt Lodge A.F. and A.M. and a past master of Har-

mony Lodge. He was a member of the Royal Canadian Yacht Club.

He is survived by his widow and two daughters, also three brothers, Drs. Orville and Alex of Toronto and Mr. Fraser Elliott, High Commissioner for Canada in Australia.

Clarence Fletcher Piper of Uxbridge, Ontario, died on April 1, at the age of 84.

Dr. Piper was graduated from the University of Michigan. He began his practice in Canada at London in 1896. He came to Toronto in 1917 and retired in 1927.

He is survived by his niece, Mrs. August Bearden at Uxbridge.

IN MEMORIAM

David Samuel Howden of Moose Jaw, Sask., aged 81, died April 30. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1903. He practised in Calgary until 1908, then moved to Moose Jaw where he practised until he retired in 1943 due to illness.

He was a member of the Odd Fellows Lodge.

Dr. Howden is survived by one son, Dr. Gordon Howden of Maple Creek, two brothers, three sisters and two grandchildren.

Albert Leduc of Hull, Quebec, aged 60, died suddenly at his summer home on April 25. He was graduated from University of Montreal and practised in Hull for 31 years.

A veteran of World War I he served as a Sergeant in the Dental Corps, including nine months' service in Siberia.

He was a devout parishioner of St. Joseph's Church, and was a member of the Gatineau Fishing Club, the Hull Branch of the Canadian Legion, and of the Hull Knights of Columbus.

Dr. Leduc is survived by his widow, three sons, two daughters, a brother and one sister.

Arthur Benjamin Mason of Edmonton, Alberta, died May 18. He was graduated from the Univ. of Pennsylvania in 1905 and registered for practice in the North West Territories in 1906, just prior to the establishment of the provinces of Alberta and Saskatchewan. He practised in Edmonton continuously from then until his death.

He was a member of the Alberta Board from 1920 until 1936 and held office as President in 1921 and again in 1925. He acted as Secretary-Treasurer-Registrar

of the Board from 1928-1936. From 1926 until retirement in 1948 he was head of the Dept. of Periodontia in the Faculty of Dentistry, Univ. of Alberta and was honorary professor until his death.

Dr. Mason is survived by his widow and two daughters.

Benjamin Epp of Newtonbrook, Ontario, died on April 10 at the age of 35.

Dr. Epp was graduated from the Faculty of Dentistry of the University of Toronto in 1950.

He was a member of the United Church.

He is survived by his widow.

Oswald George Shepherd of Fort Qu'Appelle, Saskatchewan, died on April 25.

Dr. Shepherd was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1923. He practised in Hamilton from 1923 to 1934 when he moved to Hagersville; the following year he moved to Sudbury. He was President of the Sudbury Dental Society while living in that city.

Dr. Shepherd served in the First Great War as a Lieutenant; he enlisted in 1915 in the 159th Algonquin Battalion. Again in the Second Great War he enlisted in 1940 as Lieutenant in the Veteran's Guard of Canada; eight months later he was transferred to the Canadian Dental Corps and posted at Camp Borden with the rank of Captain. In September 1942 he was promoted to rank of Major. After demobilization he was appointed in 1948 to Dental Surgeon with the Indian Health Services Department of Health and Welfare.

Dr. Shepherd is survived by one son and one daughter.

DIRECTORY

Canadian Dental Association Headquarters—234 St. George Street, Toronto, Ontario.

Matters relating to the publication of manuscripts or news items for the English Section of the Journal should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

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Subscription Price of Journal in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

All additions and changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

A propos de différence, qui existe entre le curetage subgingival et le détartrage simple

par JULES THEBAUD, D.D.S., M.Sc.D., LL.L. (Hon.), L.Sc.P., LL.D.,
F.I.C.D., F.A.P.H.A., F.I.C.S. (Hon.), Montréal

En chirurgie dentaire, il n'y a pas un terme pouvant donner lieu à autant de confusion que celui *curetage*. Ce terme est employé pour désigner un simple détartrage, comme aussi l'ablation des masses granuleuses infectées au niveau des clapiers péri-dentaires ou "pyorrhéiques." Le détartrage n'est pas toujours superficiel, puisqu'il s'étend très souvent à l'intérieur des culs-de-sacs; et quant au curetage subgingival, il comporte surtout, en plus du détartrage, une technique opératoire qui relève certainement de la chirurgie.

Comparativement aux méthodes radicales, comme le curetage avec dissection et suture de la gencive et la gingivectomie qui visent à l'ablation massive et totale des tissus conjonctifs mous dégénérés, le curetage subgingival ne relève qu'en partie de la chirurgie; il est même exclu du groupe des traitements radicaux, et c'est pourquoi il est souvent désigné sous le terme de traitement conservateur.

McCall et Stillman ont été les premiers à préconiser en même temps que le détartrage, l'ablation méthodique de l'épithélium au moyen du curettes spéciales, après l'application de sulfure de sodium. Et plus tard, Meritt, Miller et d'autres sont venus mettre l'accent sur le curetage du tissu granuleux qu'ils considèrent

comme la phase la plus importante en périodontie opératoire.

L'équivoque qui porte à désigner le détartrage subgingival par le terme *curetage* semble remonter au temps même de Riggs, qui pratiquait le décollement des calculs salivaires surtout au moyen de curettes.

Pour donner de bonnes assises à sa théorie par laquelle il prétendait que toutes les formes de périodontite ou de "pyorrhé alvéolaire" étaient causées par les dépôts de tartre salivaire, Riggs, vers la fin du dernier siècle, donna à ses adeptes des preuves tangibles de l'efficacité de sa méthode en obtenant des améliorations, qui, bien que d'un caractère fugace, étaient cependant notoires.

Le détartrage qui était alors pratiqué "grosso modo," avec des instruments de fortune, en forme de curette, devint dans la suite une technique si minutieuse, qu'il entraîna nécessairement l'emploi d'instruments de plus en plus perfectionnés. C'est ainsi qu'aujourd'hui, en plus des curettes, nous disposons d'une grande variété de racloirs, de curettes, de houes et de limes qui permettent de polir les surfaces cémentaires presque aussi bien que la partie externe ou coronaire des dents. La technique s'est perfectionnée à un tel point que l'inclinaison des instruments sur la surface des racines ainsi que leur

emploi par ordre d'importance sont systématiquement réglés.

Je cite, en exemple, la figure No 1, qui montre jusqu'à quel degré de perfectionnement le matériel et la technique dont nous disposons aujourd'hui, permettent d'obtenir le polissage des surfaces radiculaires, à l'intérieur des culs-de-sacs de très grande profondeur.

Dans un clapier de 7mm., le côté "B" de la racine jusqu'en "Z" avait autant de dépôts tartriques que le côté "A". L'em-

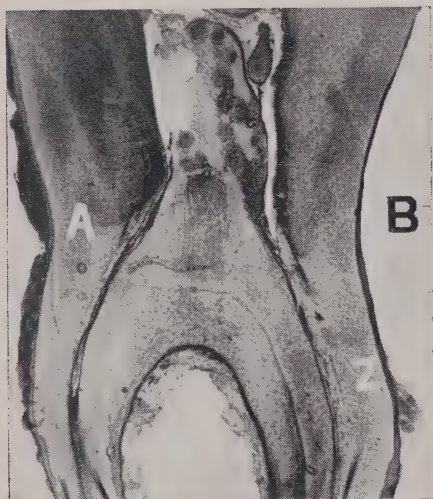


FIG. 1

ploi successif de houes et de curettes bien aiguisées a permis d'atteindre la surface uniforme que nous voyons en "B", sans qu'on ait eu recours à l'usage de la lime cémentaire en dernier lieu pour la polir. Il arrive cependant qu'on emploie ces instruments sans modération, exposant ainsi inutilement la dentine par le raclage intempestif à la houe et à la curette. La méthode dite "à glissement" dans tous les sens ou "routine planing" de Miller donne d'excellents résultats en évitant les excès possibles. Le sillon gingival normal peut-être aussi lacéré, au point de rompre les attaches de la membrane périodentaire à la dent.

La figure No 2 donne une idée des résultats néfastes, d'un détartrage à l'excès, fait brutalement: le ciment est entière-

ment disparu et la muqueuse qui était attachée en "A" ne s'arrête maintenant qu'au point "B".

Après Riggs, certains opérateurs, opposants acharnés de la méthode chirurgi-



FIG. 2

cale de Robitsek, se sont cantonnés parmi des extrémistes qui considéraient ce détartrage comme l'unique et seul moyen de traiter la périodontite simple ou même complexe, et à n'importe quelle phase(?).

Ils le firent avec tant de bonne foi qu'ils mirent un soin minutieux à couvrir toutes les phases de cette opération, sans jamais se soucier du désordre biologique, ni de la désorganisation des tissus périodentaires; oubliant ainsi que le détartrage n'est qu'une phase de la technique qu'ils employaient. Et c'est ainsi que le mot *curetage*, employé pour désigner le polissage et le détartrage les racines à la

curette, a fini par jouir d'une tolérance dans notre nomenclature. Le terme et la technique ont fait école. C'est pourquoi, bon nombre d'étudiants ou de profanes en périodontie pratiquement encore le détartrage à la curette dans tous les cas de périodontite, même quand il n'existe que quelques îlots microscopiques de calculs sur les racines.

Faut-il croire que cette façon d'agir est une affaire d'école ou d'habitude, ou de négligence? Car, en somme, c'est un sujet qui est d'une compréhension facile; les racines recouvertes de calculs ne représentent qu'une seule paroi des clapiers, c'est la paroi dense et calcifiée qui est invariablement composée de ciment dentaire.

Alors même que l'on arrive à obtenir une surface polie après le détartrage, ou que l'on parvienne à mettre à découvert de nouvelles couches de ciment, il reste encore la paroi alvéolaire des clapiers constituée par la muqueuse buccale et son épithélium qui s'incurve au tiers gingival des dents vers l'apex et les fibres de la membrane périodentaire attachées elles-mêmes à la lamina dura.

Quand cette paroi alvéolaire est à peine touchée au cours du raclage cémentaire, la juxtaposition des tissus granuleux contre la racine se fait quand même, mais le contact organique est loin d'être complet et les éléments ulcérés ou nécrosés, qui en constituent la substance, demeurent quand même le siège de l'infection au périodentium. Parfois, au cours de la manœuvre opératoire, ces tissus sont accidentellement curetés; mais ceci est fait trop timidement, parce que la main qui opère craint de les lacerer, ou parce qu'en principe il s'agit d'un traitement conservateur au cours duquel toute idée de chirurgie semble être écartée.

La vérité au sujet de ces curetages incomplets, puisqu'en réalité, il n'y a qu'une portion des clapiers qui se trouve traitée, la vérité est que les résultats peuvent être positifs quand il s'agit d'un décollement léger de la gencive au cours d'une gingivite d'origine tartrique; mais quand les culs-de-sacs sont bien constitués en profondeur, le résultat est tout autre.

Considérons un instant ce qui se pro-

duit au cours de la phase évolutive d'un clapier périodentaire ou "pyorrhérique," tel qu'observé dans la figure No 3.



FIG. 3

D'un côté, à la paroi alvéolaire (B), nous constatons la désintégration profonde de l'os alvéolaire (1), la perturbation du système vasculaire (2) et l'ulcération massive du tissu granuleux, (3), vestige désorganisé de ce qui était autrefois la membrane périodentaire, mince et délicate qui reliait la lamina dura au ciment de la dent, comme en (4).

Tout-à-fait au fond du cul-de-sac, en (5), nous remarquons des faisceaux de fibres extrêmement développées, tendues en une espèce de barrage contre le processus nécrotique. De l'autre côté, sur la paroi calcifiée (A), nous reconnaissons de gros dépôts tartriques sertis au ciment, à un endroit même où ce tissu semble avoir été digéré, absorbé au cours d'une réaction ostéoclastique.

Il est facile de comprendre ce qu'il adviendrait à la suite d'une intervention qui se limiterait au fait banal du détartrage et du polissage de la paroi cémentaire de ce cul-de-sac profond et ulcéré.

Conséquemment, l'élimination des calculs, agents d'irritation, provoquerait la guérison, s'il s'agit d'une périodontite d'origine tartrique; cependant si la résorption alvéolaire est marquée et que l'état nécrotique du clavier est avancé, il se produirait une certaine amélioration, mais non pas la suppression des tissus nécrosés, ni la régénération immédiate des fibres de la membrane périodentaire. Ce même tissu granuleux est susceptible de se développer à nouveau et de s'infecter à la faveur des mêmes circonstances qui ont déclenché sa formation; traumatisme occlusal, manque de contact proximal, augmentation de la flore bactérienne dans le clavier, etc. . . .

Peut-être, pourra-t-on, à force de patience, arriver à en activer le pouvoir de régénération, en la réduisant, ou en obtenant sa transformation en tissu sain et normal par l'emploi d'un styptique ou d'un médicament caustique à faible dose, comme le chlorure de zinc?

Orban croit qu'il est possible d'obtenir ainsi la réhabilitation de ce tissu. Mais c'est une méthode peu facile qui requiert beaucoup d'habileté et qui donne lieu aussi à des aléas; surtout quand il s'agit de culs-de-sacs d'accès difficile.

L'ablation des tissus granuleux jusqu'au niveau de l'os alvéolaire paraît plus logique. C'est cette phase de l'intervention qui relève d'une chirurgie délicate. Et c'est ainsi, qu'on le veuille ou non, que cette méthode, dite conservatrice, prend une forme radicale à un certain moment. Nous répétons d'après Miller: "Le curetage de l'épithélium et du tissu granuleux ne relève d'aucun procédé spécial, mais il est important qu'ils soient atteints au moyen de la curette et éliminés au complet."

D'ailleurs, en périodontie, à moins qu'il ne s'agisse de traitement de gingivite marginale, de nature infectieuse, comme la gingivite ulcéro-membraneuse de Vincent, toutes les méthodes visent à la réduction et à la suppression des cla-

piers par l'élimination du tissu dégénéré ou infecté. Le but ultime est la cicatrisation et la juxtaposition organique des néo-tissus cicatriciels contre la racine après l'élimination de causes locales et générales incriminées ou douteuses. Une nouvelle adhérence des fibres de la membrane périodentaire au ciment n'est pas toujours possible. C'est un processus de guérison qui peut se développer parfois, peut être trois fois sur dix, après les interventions bien faites.

Box a donné des preuves bien évidentes de cette seconde prise des fibres dans du néo-ciment et dans de nouvelles couches de l'os alvéolaire régénéré. Mais la chose n'est possible qu'en autant que l'opérateur ne s'arrête pas au simple détartrage des racines. La condition principale est que tous les tissus dégénérés et tous les produits de cette dégénérescence, tels que l'épithélium qui s'étale en direction apicale entre les fibres du ligament alvéolo-dentaire, et les calculs salivaires qui constituent ce que McCall appelle les rebuts ou "T'apoxemena": toute cette gangue doit être éliminée! Ce que l'on ne saurait obtenir au moyen du raclage ou polissage radiculaire ordinaire.

Même après un curetage bien fait, il y a lieu de surveiller l'état des tissus cicatriciels, qui sont placés au pourtour de la dent et au tiers gingival; car la partie de la muqueuse, qui est maintenue à la place du sillon gingival normal, est sujette à la récédive. C'est pourquoi, il est nécessaire d'observer et de raviver périodiquement l'épithélium à cet endroit au moyen d'un raclage au sulfure de sodium.

Dans le curetage subgingival, il convient donc, non seulement de procéder à un détartrage complet au cours d'une *première phase* de l'intervention, mais aussi d'entreprendre dans une *seconde phase* l'ablation des tissus dégénérés à la paroi alvéolaire et pendant une *troisième et dernière phase*, de racler le fond du clavier, au moyen de très fines curettes.

Après de telles manoeuvres opératoires, il va sans dire toute l'importance qu'il faut attacher à l'emploi de ciment périodentaire ou "pack" à base d'oxyde de zinc, si l'on désire obtenir la protection

des néo-tissus en formation: précaution tout-à-fait inutile quand il s'agit du détartrage simple.

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270 Outremont

Allocution du président-élu de l'Association Dentaire Canadienne au diner du cinquantenaire de l'Association*

par GUSTAVE RATTE, Québec

C'est un signe de haute considération pour l'Association Dentaire Canadienne qu'une Société aussi importante que la Société Dentaire de Montréal rappelle en une circonstance comme aujourd'hui, les faits et gestes de notre Association, pendant son premier demi-siècle.

La prochaine livraison de notre Journal contiendra un résumé de l'histoire de notre profession pendant les derniers cinquante ans; vous les recevrez avant la fin du mois. Je me crois donc dispensé de vous en faire le sommaire.

Cinquante ans représentent une courte existence pour une Association; mais déjà nous pouvons être fiers de notre Association qui, par son prestige, son désintéressement et son esprit d'unité, occupe un rang qui fait l'envie des autres professions.

Les Sociétés dentaires, les collèges provinciaux, notre Association ont une mission distincte à remplir, mais tous doivent envisager le même but dans une communauté d'action: une profession de haut savoir, respectable et respectée du public, qu'elle a la mission de servir.

La profession dentaire a suffisamment vécu pour savoir qu'elle survivra à condition que ses membres reçoivent d'abord une bonne formation scientifique. L'arbre est solide et fructueux en autant que ses racines sont bien enfoncées dans un sol

fertile. Il faut que ceux qui nous remplaceront, reçoivent plus que nous avons reçu. L'Association Dentaire Canadienne salue avec admiration l'effort magnifique fait par les écoles dentaires, pour rehausser le quotient éducationnel de nos futurs dentistes. Elle y apporte son concours désintéressé, par son Conseil d'Enseignement. Si nous voulons briller, préparons une génération de professionnels renseignés, même s'il faut, pour y arriver, piétiner des susceptibilités, des manières de voir désuètes ou un attachement malsain à l'histoire.

Au sortir de l'Université, le dentiste se tourne généralement vers les Sociétés Dentaires pour y trouver un complément à sa culture et le support moral de ses confrères. Jusqu'ici, nos Sociétés Dentaires ont d'une manière générale limité leurs efforts à la science dentaire. Au risque de passer pour un révolutionnaire, je me permets d'exprimer une idée personnelle, qui peut servir à l'amélioration du rendement scientifique de nos confrères; j'ose donc avancer que nos Universités devraient assumer l'enseignement aux gradués, avec une formule nouvelle. Des cours de perfectionnement de courte durée pourraient être organisés pour des groupes considérables, à des prix modiques. Deux ou trois jours suffiraient, une ou deux fois par année, à remet-

*Diner organisé par la Société Dentaire de Montréal, au cours du Congrès annuel tenu à Montréal, le 15 mai 1952.

tre à la page les connaissances des anciens diplômés. Nos Universités ont les possibilités physiques, l'espace, le matériel d'enseignement et le personnel nécessaires. Elles pourraient inviter des professeurs et des praticiens étrangers de haute valeur pour augmenter la portée de ces cours. Le programme scientifique de ce Congrès n'est-il pas en grande partie basé sur le travail de professeurs actuels et d'anciens professeurs de nos universités?

Cet enseignement post-scolaire aurait au moins deux bons effets: ramener les anciens à l'Université et les garder en contact avec le foyer culturel de la profession dentaire. Les Sociétés dentaires auraient de ce fait plus de temps pour étudier les problèmes économiques et sociaux de la profession. Ceux, qui comme quelques-uns d'entre-nous, ont la responsabilité de diriger les destinées de notre profession, déplorent à juste titre le peu d'importance que la plupart de nos confrères attachent à toutes les questions sociales, économiques et administratives qui la concernent. Nous constatons avec anxiété le peu d'intérêt porté à la direction générale de notre profession, et nous sommes souvent obligés de redresser des initiatives prises par des individus et des sociétés parce qu'insuffisamment renseignés.

Les Arts, les Sciences et les Lettres constituent un autre domaine que nos Sociétés n'ont pas encore exploré pour le bien de leurs membres. La culture générale doit être le lot de tout professionnel digne de ce nom. J'ai souvent entendu dire: "J'aimerais bien que l'on parle d'autre chose à nos réunions que de la dentisterie. J'en fais de huit à dix heures par jour, j'en ai assez. J'aimerais entendre de temps en temps quelqu'un qui traiterait de sujets propres à reposer mes méninges de mon travail quotidien." Je soumets ces suggestions dans un but constructif. Plus les membres de notre profession seront qualifiés et plus ils seront d'honnêtes praticiens, plus ils bril-

leront par leur culture, plus nous serons fiers d'être dentistes et le public nous manifestera encore plus d'estime.

Il me reste un agréable devoir, celui de remercier la Société Dentaire de Montréal pour le magnifique cadeau qui servira à l'ornementation de notre Secrétariat. Il vous est arrivé d'occuper une maison neuve, un logis nouveau. Quand les fenêtres et les planchers sont garnis et que les meubles indispensables y sont placés, vous songez alors à l'agrémentation de votre demeure. Voici le moment de choisir un tableau, une sculpture, un bibelot qui feront de votre foyer un endroit où il fait bon vivre. Sans trop avoir l'air d'y penser, vous jeter un coup d'œil désintéressé dans les boutiques ou les magasins susceptibles d'avoir l'objet de vos rêves.

Soudain, au moment le plus inattendu, vous rencontrez l'ornement idéal et, chose inexplicable, vous trouvez toujours les moyens de vous le procurer.

C'est un moment comme celui-là, il me semble, que vous vivez messieurs de la Société Dentaire de Montréal!

Votre maison à Toronto est bien à vous. Tous les dentistes du Canada ont généreusement contribué à son achat, et le Collège des Chirurgiens-Dentistes de la province de Québec a aussi collaboré généreusement à cette acquisition à même les argents qui viennent de vous tous. Notre maison à Toronto est bien la maison de tous les dentistes du Canada, puisque, pour la distinguer des autres, elle porte cette inscription écrite sur deux lignes, dans une plaque d'acier inoxydable: "The Canadian Dental Association, l'Association Dentaire Canadienne."

Deux Provinces ont déjà donné des tableaux de grande valeur et votre geste généreux et à l'esprit de chez-nous ne manquera sûrement pas d'être admiré par tous ceux qui passent à notre Secrétariat. Quant à celui qui vous représente, il écouterait avec une légitime fierté les louanges que l'on fera de votre don magnifique. Au nom de l'Association et au mien, je vous réitère un cordial merci.





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Rapport du Rédacteur de la Section française*

M. le Président et Mm. les Gouverneurs.

Encore une fois, j'ai bien l'honneur de soumettre un rapport sur les activités de la section française du Journal pour l'année qui vient de s'écouler; je vous ferai part aussi des intentions du Comité de Rédaction pour l'année qui vient.

Cette année, plus que jamais auparavant, les confrères nous ont fait tenir des écrits scientifiques; ces communications n'ont pu toutes être publiées, faute d'espace. Il nous reste une bonne douzaine d'articles intéressants que nous nous proposons de publier bientôt. Nous sommes rendus à un point où nous pouvons faire un choix des articles qui nous sont soumis; les meilleurs sont utilisés, les autres retournés à leurs auteurs avec la meilleure explication possible.

Il y a quelques années, je me souviens que les pages de la section française devaient souvent être remplies de découpures de revues européennes de langue française.

Les temps sont maintenant changés! Les dentistes canadiens-français se rendent enfin compte de l'importance de la recherche et du rôle prépondérant d'un journal scientifique, dans l'amélioration du rendement d'une profession.

Plusieurs de nos articles sont reproduits dans des revues de France, de Belgique et de Suisse. Parfois, les directeurs de ces revues sollicitent la permission de le faire. Parfois, ils ne demandent pas d'autorisation et cette omission fait naître des problèmes épineux. Il est arrivé que des revues

*Présenté à la réunion du Bureau des Gouverneurs de l'Association Dentaire Canadienne, à Vancouver, le 11 juin 1952.

sérieuses nous ont demandé la permission de reproduire; nous acquiesçons toujours quand il s'agit de publications professionnelles. Entre temps, des périodiques commerciaux s'étaient emparé de ces articles. En conséquence, les premières revues nous écrivaient pour nous annoncer qu'elles n'étaient plus intéressées, puisque l'article en question était déjà connu de leurs membres. Il semble difficile d'empêcher des publications commerciales de copier nos articles, surtout dans un pays étranger. Je vous rapporte ces faits pour que vous essayiez de trouver une solution, qui renforcerait les droits éditoriaux de notre Journal.

Vous avez déjà reçu la livraison spéciale du Journal publiée à l'occasion du cinquantième anniversaire de la fondation de l'A. D. C.

Ce numéro a été rendu possible grâce à la collaboration diligente de quelques membres distingués, qui ont bien voulu relater divers aspects de l'histoire de notre profession. Il est possible que la section française ait retardé quelque peu la date de parution de ce numéro spécial. En explication, nous devons vous dire que les imprimeurs nous ont fixé la date ultime pour l'envoi de la copie qu'à la toute dernière minute. Dans ces circonstances, nous ne pouvions que faire ce qui nous était possible.

La préparation de cette livraison commémorative avait été placée sous l'égide du Comité des Relations extérieures. Il serait à propos que le Président de ce Comité écrive une lettre de remerciements à tous ces collaborateurs pour leur contribution à la célébration du jubilé d'or de notre Association.

Pour l'avenir, le Comité de Rédaction de la section française a élaboré des projets, qui seront mis en acte aussitôt que les circonstances difficiles dans lesquelles s'effectue la publication du Journal s'amélioreront. Notre situation peut se comparer à celle d'un jeune couple, qui se serait marié, il y a quelques cinq ans et qui aurait loué un logis de cinq pièces. Depuis ce temps, des additions ont augmenté le nombre des membres de la famille. L'espace est restreint, mais on s'accommode tant bien que mal. On fait des projets et on espère qu'un miracle viendra apporter une solution au problème du logement.

Avant de terminer, permettez-moi d'offrir au Gérant d'affaires, au Dr Garvin et aux membres du Comité de Publication ma gratitude la plus sincère pour l'esprit de collaboration qu'ils ont manifesté à la section française du Journal durant toute l'année.

Respectueusement soumis,

GERARD DE MONTIGNY



Hygiène dentaire

par AMHERST HEBERT, D.D.S., Montréal

Tout comme l'hygiène générale fait partie de la médecine qui traite des milieux où l'homme est appelé à vivre, et de la manière de les modifier dans le sens le plus favorable à son développement, ainsi l'hygiène buccale est une science qui enseigne les moyens de prévention de la dentition de l'enfant et de sauvegarde de la denture de l'adulte.

Depuis 1900 à nos jours, les progrès accomplis pour la diffusion de l'hygiène de la bouche ont avancé à pas de géant. Au début, cette science ne comptait à son crédit que les travaux d'urgence (extractions, obturations en or et appareils de prothèse dentaire). Le mercantilisme et la vanité aidant, notre population ne se faisant traiter que pour satisfaire ce besoin et pouvoir ainsi exhiber un large sourire.

L'enseignement de l'hygiène dentaire n'avait pas encore touché les couches profondes de notre société moderne. Le travail d'éducation fut lent à démarrer. Nous avons, certes, fait du bien... mais déjà, nous confondions trop facilement les phases curatives et préventives. Avec le temps, nous en sommes arrivés à une formule plus rationnelle de l'éducation dentaire chez-nous (revues, articles aux journaux, conférences, cours donnés aux infirmières et officiers médicaux des unités sanitaires). Nous avons ainsi pu faire le point entre la prédication d'une science et son enseignement scientifique. Les bonnes volontés se mirent résolument à l'oeuvre et nous orientons nos efforts vers la prévention, par une éducation mieux faite dans le domaine pédagogique et social.

Il y aura encore des directives louables qui n'apporteront pas toujours le succès désiré par les pionniers de l'enseignement de cette science. Nous espérons parvenir à un enseignement uniforme... C'est un principe pédagogique indéniable.

Dans tous les domaines de l'activité humaine, l'éducation sera toujours une création de saines habitudes. Ce qui est

vrai dans le domaine de la culture générale, l'est aussi pour l'hygiène dentaire et l'hygiène générale. L'importance de l'hygiène de la bouche est mieux comprise par le public. Si nous jetons un coup d'oeil en arrière, nous constatons que l'évolution de cette science a fait un bond.

Ainsi en 1915, il n'y avait qu'un dentiste pour accomplir ce travail d'éducation dans toutes les écoles de la ville de Montréal. Ce n'est que plusieurs années plus tard, soit en 1932, que notre population scolaire fut dotée de deux cliniques dentaires où l'on faisait les extractions, les pansements et le nettoyage des dents (Maisonneuve et Laurier).

En juin 1938, avec l'acquiescement du service de Santé de la Cité de Montréal, il y eut l'organisation d'un service d'hygiène dentaire, à la Commission des Ecoles Catholiques de Montréal. Ce service d'éducation d'hygiène buccale faisant partie du programme des études scolaires. Ce fut un geste significatif et, par ricochet, la plus belle victoire pédagogique, jamais remportée par notre groupe. Nous avions affermi le principe de l'éducation des jeunes en hygiène dentaire. Ce travail d'éducation porta des fruits; un service de dentisterie opératoire était organisé dans une clinique municipale et plus tard, dans quatre autres.

Dans la même année, en 1939, le Dr R. R. Lalonde fut nommé chef de section. Lors de sa nomination, six cliniques dentaires étaient en opération. Grâce à une entente entre la Faculté de Chirurgie Dentaire et la Ville de Montréal, une clinique d'orthodontie pour la prévention et la correction des malocclusions dentaires fut organisée à la l'Université de Montréal. Ce travail d'équipe se fait sous l'habile direction du Dr Paul Geoffrion, professeur titulaire de l'enseignement d'orthodontie à la Faculté de Chirurgie Dentaire de l'Université de Montréal.

Aujourd'hui, parmi les services sanitaires organisés dans notre province, le

Service de Santé de Montréal voit à l'organisation de quatorze cliniques dentaires. Ces cliniques emploient dix chirurgiens-dentistes à temps complet et sept à temps partiel.

Cinq ou six cliniques, encore à l'état de projet, assureront à la population montréalaise un service estimable. Quelques industriels sont intéressés à la cause de l'hygiène de la bouche de leurs employés. D'autres emboîteront le pas. La Croix Rouge, The Red Cross Society et Red Feather font aussi du beau travail dans ce domaine des services auxiliaires.

Le Département de la Santé Publique est notre organisation sanitaire provinciale. Dans ce domaine, l'un des nôtres est à mettre sur pied sur une base durable, ce travail de saine éducation dentaire, dans les écoles rurales de notre province. Sa tâche est lourde de conséquences et sa besogne écrasante. Notre confrère, le Dr Bonneau, doit voir au fonctionnement du service d'éducation dentaire dans les 75 unités sanitaires de 57 comtés. Si nous voulons jongler avec les statistiques de la population d'âge scolaire et préscolaire, nous touchons au problème économique et social que nous offre l'hygiène de la bouche tant dans les écoles rurales que dans les écoles des grands centres.

La carie dentaire est tellement répandue que les sociologues de tous les pays sont

forcés par les circonstances, d'envisager ce fléau sous son angle social. Cette maladie des dents tient dans ses tentacules toutes les classes de notre société moderne. La médecine scolaire est primordialement de la médecine préventive et les chirurgiens-dentistes doivent collaborer avec le médecin afin d'empêcher l'enfant sain de devenir malade. De toutes les maladies de l'enfance, la carie dentaire est la plus susceptible d'être enrayée par la prévention (diète et nutrition) et ce côté préventif est intimement lié à l'éducation de notre population scolaire. Les expériences faites ailleurs nous obligeraient à reviser certaines conceptions et les résultats obtenus nous autorisent à croire et à affirmer que ce travail d'éducation est nécessaire et réalisable.

Depuis vingt-cinq ans, nous sommes allés de l'avant et nous sommes assurés qu'avec une meilleure compréhension de ce problème, nous en arriverons à un éclatant succès. Les jalons posés serviront de tremplin à la génération qui monte et, avec le temps, l'hygiène de la bouche sera mieux comprise pour le plus grand bien de notre population.

La réalisation d'un tel rêve demandera un travail lent, méthodique et prudent. Ne pas prêcher seulement l'hygiène dentaire . . . mais bien l'enseigner!

5270 Notre-Dame de Grâce

Nombre de dentistes embauchés dans les services de santé, par province
(au 1er janvier 1952)

	T.-N.	I. du P.-E.	N.-E.	N.-B.	Qué.	Ont.	Man.	Sask.	Alta.	C.-B.	Total
Facultés Dentaires: (personnel enseignant)											
Plein-Temps . . .	0	0	1	0	10	12	0	0	2	0	25
Demi-Temps . . .	0	0	0	0	14	5	0	0	11	0	30
Service Hospitalier:											
Plein-Temps . . .	0	0	0	2	0	23	0	2	5	0	32
Demi-Temps . . .	0	0	0	1	0	4	0	0	0	1	6
Service Dentaire Scolaire:											
Plein-Temps . . .	0	0	1	0	0	16	1	0	3	16	37
Demi-Temps . . .	0	0	4	3	11	45	2	1	1	1	68
Service de Santé Publique:											
Plein-Temps . . .	0	2	4	1	11	11	1	0	0	7	37
Demi-Temps . . .	0	0	0	0	8	0	0	0	0	0	8

Discours du Président de la Société Dentaire de Montréal*

par CHARLES-AUGUSTE DURAND, D.D.S., Montréal

En marge du dîner principal de ce congrès, coïncidant si bien avec le cinquantenaire de l'Association Dentaire Canadienne, le Président de la Société Dentaire, qui n'est pas un rêveur, semble voir se dérouler devant ses yeux un magnifique spectacle.

Spectacle magnifique, Messieurs, où à l'arrière plan se jouent les couleurs de la Société Dentaire. Nous y voyons le Comité d'organisation qui s'est donné beaucoup de peine et qui a aussi éprouvé beaucoup de joie, à préparer ces réunions sociales et scientifiques dont les effets tonifiants serviront non seulement à soutenir et à réchauffer l'idéal et l'enthousiasme de la profession, mais aussi à soulager et à guérir l'humanité souffrante-souffrant d'une maladie beaucoup trop connue, parce que beaucoup trop répandue.

Pour faire la preuve de ces bonnes intentions, qu'il me soit permis, Messieurs, de mettre en évidence les points les plus saillants de notre programme. Nous y verrons leur répercussion au point de vue culture intrinsèque, au point de vue social et au point de vue humanitaire.

Tout d'abord, dans le domaine de la dentisterie palliative nous avons voulu étudier l'incrustation en or, l'amalgame d'argent, l'anesthésie locale et la prothèse complète. Ce sont des points dont on ne peut pas se passer en pratique courante.

Dans les sujets d'aspect général, nous avons eu une conférence sur l'organisation intime du Collège, une autre sur les relations dentaires à travers le monde et, à midi, nous avons écouté avec grand intérêt, une causerie sur le plan d'assurance-sécurité que l'Association Dentaire Canadienne a pris tant de souci à préparer.

Ces quelques points, Messieurs, pourraient se donner comme la formule complète d'un congrès dentaire. Mais nous

avons voulu aller plus loin; nous avons voulu explorer les aspects les plus nouveaux et les découvertes les plus importantes que nous offre la science dentaire.

À l'heure actuelle, comme la greffe osseuse au maxillaire inférieur semble vouloir supplanter l'implantation métallique et devenir plus pratique et beaucoup plus réalisable, nous avons étudié la technique de cette opération nouvelle faite en vue d'améliorer la stabilité des pièces de prothèse. Nous sommes heureux qu'un des nôtres, un canadien-français, dentiste et médecin, gradué de notre Université ait beaucoup contribué à développer cette technique.

On a présenté aussi les développements les plus récents et très importants dans la composition des substances anesthésiques et l'on parle à l'heure actuelle d'une nouvelle seringue pour administrer les anesthésiques locaux, seringue à jet sans aiguille d'acier. Quelle appréhension disparue, quel soulagement pour nos patients!

En plus, Messieurs, nous avons ici en montre l'appareil abrasif, le Airdent, qui nous permettra de préparer les cavités sans engin rotatif, sans fraise, sans friction, sans chaleur, sans douleur, etc., etc.

Le Airdent, dont toutes les revues et les digests ont parlé avec éloges, le Airdent, que tous nos patients cherchent dans nos bureaux!

Mais de grâce, Messieurs, laissons au Airdent le temps de faire ses preuves.

L'appareil que nous avons ici nous a été prêté par la Faculté dentaire. La Faculté dentaire est sage et prudente; l'appareil est dans ses laboratoires depuis des mois et personne n'en entend parler; c'est qu'en silence, prudemment, plusieurs professeurs l'emploient, le manipulent, l'expérimentent pour en voir ses possibilités pratiques.

Ayons donc les yeux tournés vers la

*Prononcé au dîner du cinquantenaire de la fondation de l'Association Dentaire Canadienne, au cours du Congrès annuel de la Société Dentaire de Montréal, tenu à Montréal, les 15, 16 et 17 mai 1952.

Faculté de chirurgie dentaire et attendons la vérité.

Nous étions très heureux de pouvoir vous montrer le Airdent, car il nous semble qu'un appareil qui peut avoir une telle portée ou révolutionner toute la dentisterie opératoire, devait être vu, approché et jugé par les dentistes eux-mêmes.

Un autre fait nouveau, Messieurs, que nous avons voulu étudier au cours de ce Congrès et qui est de portée mondiale, c'est le problème, le grand problème, non plus de la réparation, mais *le problème de la prévention des caries*.

Et depuis un quart de siècle, il n'y a pas de domaine en dentisterie qui ait été exploré plus que celui-là.

Nos méthodes préventives par la diète prônées par Mad. Malanby, de Londres, ou Miss Martha Jones, d'Hawai, sont de ce domaine.

Nos méthodes préventives par l'hygiène buccale ou la dentisterie opératoire, l'une calquée sur la théorie de Miller, l'autre élaborée sur l'odontotomie prophylactique de Thadens Hyatt, sont de ce domaine.

Nos méthodes préventives par le contrôle lactique prônées par Fosdick ou par Kesel ou par Becks ou par Henschel sont aussi de ce domaine.

Toutes ces méthodes étudiées depuis 25 ans sont bonnes et efficaces, mais demandent tellement d'effort de volonté, tellement de temps et tellement de déboursés que la nature humaine, dans son ensemble, ne peut pas s'y plier efficacement.

C'est pourquoi, les bouches contiennent encore et toujours un nombre grandissant de caries, spectacle navrant dans un monde si moderne, parmi des populations tellement civilisées.

Prenons garde, Messieurs! Cherchons, étudions, assistons à des Congrès, encourageons nos laboratoires de recherches. Pendant que le monde dentaire parle de mesures préventives, d'autre milieux, comme le Congrès de Washington et les Communes d'Ottawa, songent à la socialisation de la dentisterie, comme on l'a fait en Angleterre, pour parer à l'état lamentable des bouches. Prenons garde!

Cependant, Messieurs, depuis quelques années nous fondons énormément d'espoir sur la fluoruration des eaux potables, comme moyen d'enrayer la carie dentaire.

La fluoruration de l'eau potable ne comporte en soi rien d'extraordinaire; elle se fait à l'image de la chloruration avec des appareils analogues et sans plus de difficultés techniques et mécaniques.

Elle est aussi un moyen d'application universelle. Elle ne demande pas d'effort de la part de l'individu; elle ne lui coûte pas de déboursé direct; elle n'occasionne pas de perte de temps par des visites répétées chez le dentiste.

Regardons nos voisins, les Américains, et nous verrons qu'à l'heure actuelle 200 localités ajoutent du fluor à leurs eaux de consommation.

Des études faites par des villes qui ont fluoruré leurs eaux depuis plus de 5 ans, nous disent avec grande évidence que la diminution des caries est de 50 à 60%, sans exception, et même davantage.

Depuis que l'on a introduit le silico-fluorure de sodium, le coût de la fluoruration est de .05 à .08, par tête, non plus de .11 à .14 comme à Brantford, Ontario, première ville canadienne à tenter l'expérience.

Considérant ces faits, la Fédération Dentaire Internationale faisait en 1951, à son congrès dentaire de juin à Bruxelles, la recommandation à toutes les sociétés dentaires du monde entier, d'encourager la fluoruration des eaux dans leurs localités respectives, comme moyen de prévenir la carie dentaire.

L'Association Dentaire Américaine, le 2 novembre 1950, avait déjà fait la même recommandation aux sociétés dentaires américaines.

Et dernièrement, l'American Medical Association, ce n'est pas peu dire, et le National Research Council de Washington endossaient les recommandations de l'Association Dentaire Américaine.

De même en ont fait un nombre incalculable de sociétés locales dentaires ou médicales ou d'hygiène ou de bienfaisance dispersées à travers tous les Etats-Unis et le Canada.

En face de ces faits, Messieurs, nous inspirant de nos voisins et mettant aussi

à profit les expériences de Brantford, Ontario, la Société Dentaire de Montréal, veut profiter de la présence de ses invités d'honneur pour recommander à la ville de Montréal de fluorurer ses eaux potables quand le temps et les circonstances s'y prêteront, puisque cette méthode s'est avérée efficace à prévenir la carie dentaire et qu'elle est en mesure de rendre de grands services à la population.

Messieurs, le tableau que je viens de broser à la hâte, des activités du Congrès de la Société Dentaire de Montréal, réussira, je l'espère, à vous montrer comment nous travaillons au perfectionnement scientifique de chacun d'entre-vous. Nous désirons aussi le bien de la population. Ces deux buts se complètent.

Nous sommes heureux, M. le Maire, que vous soyez au milieu de nous; vous pourrez ainsi constater tout le sérieux de nos réunions scientifiques et le travail réel qui s'y accomplit.

Monseigneur le Recteur, votre visite à ce Congrès saura vous influencer quand, de retour à l'Université, vous comparerez les activités des différents groupements professionnels que vous êtes appelé à diriger. Nous espérons que vous aurez toujours un point faible pour notre faculté dentaire.

Cher docteur Ratté, vous êtes notre représentant officiel auprès de l'Association Dentaire Canadienne; vous êtes de plus le président-élu de l'Association et vous êtes ici, ce soir, son porte-drapeau. Cette manifestation vous montre bien le travail de la Société Dentaire de Montréal

en faveur du bien et de l'avancement de la profession; vous constatez, de plus, avec quel éclat notre Société a voulu fêter le cinquantenaire de l'Association.

Nous souhaitons longue vie et prospérité à l'Association Dentaire Canadienne. Nous espérons que la Providence saura l'éclairer quand elle aura à régler des problèmes d'envergure, comme la socialisation de la dentisterie; ses décisions du passé sont un gage de sa clairvoyance pour l'avenir.

Il me reste une tâche des plus agréables à remplir, celle d'offrir à l'Association Dentaire Canadienne une preuve tangible de l'estime des membres de la Société Dentaire de Montréal envers son organisme national, à l'occasion de son cinquantenaire. Ce cadeau servira à orner les murs de notre maison, à Toronto. C'est une tapisserie à l'aiguille d'une de nos artistes les plus renommées du Québec, Mlle Anne-Marie Matte.

Daigner l'accepter, Docteur Ratté, et, en notre nom, le présenter à l'Association.

Messieurs, nous avons invité à cette table le Dr Eudore Dubeau, seul fondateur vivant de l'A.D.C. A cause de circonstances incontrôlables, le Dr Dubeau n'a pu se rendre à notre invitation.

Messieurs, il ne me reste plus qu'à remercier tous nos invités d'honneur d'avoir répondu si généreusement à notre invitation. Votre présence au milieu de nous, nous remplir d'orgueil et donne de l'importance à notre Congrès et nous fait comprendre davantage nos responsabilités.

Nombre des spécialistes, par province
(comprenant seulement ceux qui consacrent tout leur temps à la spécialité nommée)

	T.-N.	I. du P.-E.	N.-E.	N.-B.	Qué.	Ont.	Man.	Sask.	Alta.	C.-B.	Total
Chirurgie buccale (Exodontie)....	0	0	1	0	3	24	3	0	2	3	33
Orthodontie.....	0	0	1	0	14	30	3	1	2	9	60
Periodontie.....	0	0	0	0	2	14	1	0	1	2	20
Pedodontie.....	0	0	0	0	2	2	2	0	0	4	10
TOTAL.....	0	0	2	0	21	70	9	1	5	18	126

Nouvelles Des Sociétés

Congrès annuel de la Société Dentaire de Montréal les 15-16-17 mai 1952 en l'Hôtel Windsor, Montréal

De deux à trois cents dentistes venus de la Province de Québec, des Maritimes et de la Nouvelle-Angleterre ont assisté au congrès annuel de la Société Dentaire de Montréal. Un programme scientifique très varié a intéressé les congressistes au plus haut point. Parmi les conférences, nous avons noté un Séminaire sur l'Incrustation en or présenté par les docteurs Jacques P. Lantier, Paul Dionne, et Gabriel Lord. Le moniteur fut le docteur Jacques Demers. Le docteur Vincent Tremblay donna une démonstration pratique sur la technique "Airbrasive" et fit suivre sa communication d'un film en couleurs illustrant cette technique. Le docteur Armand Genest présenta un travail sur la solution biologique au problème des alvéolyses. Le docteur Ephrem Vinet parla des activités du bureau provincial de Chirurgie Dentaire durant les quatre dernières années. Le docteur Josse de Wever étudia la situation dentaire et les relations professionnelles à travers le monde. Le docteur Victorien Dubé présenta une clinique sur patient en prothèse complète. Le docteur Médéric Robichaud démontra les différentes restaurations sur les dents traitées par l'Endodontie. Le docteur Antoine Raymond illustra de façon pratique l'anesthésie locale. Le docteur C. W. Johnston démontra la préparation de l'amalgame.

Pour le programme des cliniques de table: le docteur G. Baril presenta une méthode indirecte pour fabrication d'inlays (Galvano-plastie). Le docteur Guy Benoit sur la Périodontie; le docteur H. Brouillette sur les matériaux dentaires; le docteur G. de Montigny sur les volumes littéraires; le docteur Josse de Wever sur la Prise d'occlusion centrique sans bourrelet de cire; le docteur E. S. Dorion sur le "Long Cone Radiographic

Technique"; le docteur Roland Gendron sur la Périodontie; le docteur C. Madore sur les différentes sortes de sutures employées en chirurgie; le docteur J. Olivier sur les incrustations; le docteur C. Patenaude sur la réfection d'une pièce de prothèse complète; le docteur Vincent Tremblay sur l'Endodontie.

Le programme des dames fut des plus suivis: il consistait en causeries sur des sujets d'intérêt féminin, un vin, une visite à la Maison Eaton, une visite à l'Institut Culinaire, un Coquetel, Buffet et Danse.

Au cours du Congrès, le docteur Durand présenta une résolution à la ville de Montréal recommandant la fluoruration des eaux potables dans le but de diminuer la carie dentaire. Cette mesure, dit-il, a déjà été adoptée dans 200 localités américaines, à la suite des expériences de Brantford, en Ontario, première ville canadienne à adopter la fluoruration de ses eaux potables.

Comme l'Association Dentaire Canadienne célèbre cette année le cinquantième de sa fondation, le docteur Durand offrit au docteur G. Ratté un cadeau destiné à la maison canadienne de Toronto, et exprima au nom de la Société Dentaire toute son admiration pour l'A.C.D. et lui souhaita longue vie.

Le docteur Roger Charette a été élu par acclamation, président de la Société Dentaire de Montréal. Font également partie du nouveau conseil: le docteur Antoine Raymond, 1er vice-président; le docteur Louis Lépine, 2e vice-président; le docteur Vincent Tremblay, secrétaire; Le docteur Roland Gendron, secrétaire-adjoint; le docteur Victorien Dubé trésorier; les docteurs Jacques Demers, Guy Langelier, Pierre Chalifoux, et Hervé Deschênes conseillers; le docteur Gilles Baril, bibliothécaire; le docteur Gaston Lajoie, délégué au Collège des Chirurgiens Dentistes de la Province de Québec; et le docteur Charles-A. Durand, avisur.



Photo Copyright Clifford R. Kopas

FITZHUGH SOUND, BRITISH COLUMBIA COAST near NAMU, B.C.

LET US be grateful for the day. Let us rejoice in the sunlight—
and when it is hidden from us, let us remember that in upper
reaches of the air, above our clouded sphere, it still fills the
heavens.

Many good things continue to come to us. Nature is continually
providing us with bounties—while we wake, while we sleep. So
let us go to our appointed tasks with cheerful obedience and
joyful expectation. If trial and trouble await us, or if in the heat
of the day the burden seems too great, we may still be comforted
in the thought that above all, there is a Supreme Being in whom
the world from the beginning, and today, can place its trust.

—George Batchelor.



GUSTAVE RATTÉ, B.A.,
L.C.D., D.D.S., F.A.C.D.

Québec City, Province of Québec

President of the Canadian Dental Association

Member of the Board of Governors and
the Executive of the College of
Dental Surgeons of the Province
of Québec.

Member of the Dental Examining Board of Quebec.

Fellow of the American College of Dentists.

Past President of "La Société de Stomatologie de Québec."



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, AUGUST, 1952

No. 8

CANADIAN DENTAL ASSOCIATION PRESIDENT'S ADDRESS*

by HAROLD M. CLINE, D.D.S., F.A.C.D., Vancouver, British Columbia

IT IS now my privilege to declare this the annual meeting of the Canadian Dental Association. It is particularly gratifying to me to be able to appear before the Association in these surroundings. It is very recent news to you that this hotel was threatened with a strike, the deadline for such being Tuesday, June 3. If this had come about you can well imagine what effect it would have had on the meeting. When the strike seemed imminent the Convention Committee and chairmen of other committees went into a huddle. Dr. Gullett was contacted by telephone for his opinion. Out of this came the decision to hold the meeting come what may, for we were confident that in our difficulties we would have the sympathetic understanding of all concerned. The authorities of the University of British Columbia were most co-operative in making available their facilities which would have been adequate for our purposes. At this time I wish to publicly thank the University for its cooperation. It would have been necessary to house the many guests presently in this hotel, in other quarters. That was no easy task, for hotel accommodation is at a premium in Vancouver at this time of the year. At no time did those concerned with these indicated changes and difficult situations, retreat or shirk the added

responsibilities that were and would have been their lot if the strike had become reality. They should be accorded our sincere thanks. With men in the profession such as these we need not fear the future. It is to be regretted that in settling disputes such as this the innocent bystander, the public, should be called upon to suffer.

As your President it is directed that I deliver an address before the Association. Do not be alarmed. It will not be long and I hope will prove of interest, but it is necessary that the members of the Association be familiarized with the happenings within the influence of the Association. For the past few days your Board of Governors has been meeting and it is hoped and expected that from their deliberations will come actions that will be beneficial to the public welfare and to the profession of dentistry. As we consider matters of benefit to ourselves we must keep ever before us the fact that as a profession, we have a major responsibility to do our utmost to improve the dental health of the public. The Canadian Dental Association stands on record as being ready at all times to actively support, develop, and carry out constructive plans directed toward the eradication of dental diseases.

A summary of the proceedings of

*Presented at the Annual Convention of the Canadian Dental Association, in Vancouver, June 16, 1952.

your Board of Governors is sent to all members of the Association. The events reflected in these proceedings are the result of very considerable unselfish work on the part of your officers, committees and others. It is hoped you will read the proceedings and derive benefit from them.

In discharging its duty to the public the dental profession has been greatly handicapped through lack of adequate personnel. Teaching facilities are very inadequate. In Canada we have five dental schools with only limited attendance possible. The maximum number that can be graduated in any one year is two hundred and twelve. This is the same capacity for producing graduates which we had when the population of Canada was two thirds of what it is today. As a matter of fact, we have less capacity than we had formerly because some of the schools have been forced to reduce the number in the classes. The ratio of dentists to population is going down owing to the increase in population, and we are not keeping pace with this increase, in producing graduate dentists. As compared to years preceding the war the population of Canada has increased at a rapid rate. In 1938 there was one dentist for each 2665 persons while in 1951 the ratio was one dentist for each 2750 persons. The ratio in the United States is one dentist for each 1900 persons. Complaints on the part of the public as to the inadequacy of services is not corrected by condoning the practice of shortening the dental courses and producing poorly trained dentists. This has been proven to be very short-sighted. A step in the right direction is proper training and licensing of auxiliary personnel such as dental hygienists. Facilities are being provided for such training in some universities. Legislation has now been enacted in British Columbia and I understand rules and regulations have been approved by the Government to provide for the utilization of dental hygienists. This is a helpful step but does not solve the

urgent necessity for providing further facilities for training dentists.

The Canadian Dental Association recognizes the importance of research and through funds administered by its Research Committee is assisting in training dental research personnel. In research, must rest our major hope to reverse the present tendency to deterioration in dental health. Health education programs also perform a major role toward fulfilling this objective.

Through the War Memorial Award encouragement is given to graduating classes in all Canadian dental schools to submit essays on selected dental subjects considered to be of paramount importance. The prizes consist of the proceeds of the War Memorial Fund of the Canadian Dental Association. Following the last war the members of the Canadian Dental Association subscribed to a fund in memory of those members who lost their lives in military service. The contributed moneys make possible this annual award known as the War Memorial Award. At this time I wish to announce the winners of the Award for this year. First prize: Jean Rives, University of Montreal; Second prize: Walter W. Pressey, University of Toronto. It is interesting to note that the decision of the judges was unanimous.

You are all familiar with the Pension Trust Plan as instigated by the Canadian Dental Association and now being put into effect. This Plan is an attempt on the part of the Association to facilitate planned security for its own members by their own efforts. Two trustees of the Canadian Dental Association provide the means by which the Plan is supervised on your behalf. Mr. E. L. R. Williamson, Manager of the company operating the Plan, will be given a short time to introduce the subject and will later meet those who would be interested in it.

It is now learned that the bill for incorporation of the National Examin-

ing Board under the sponsorship of the Canadian Dental Association has been approved by the Federal Government. The rules and regulations covering the activities of this board will require to be approved by the dental legal body in each province before it can become a going concern. It is hoped and expected that this will answer a long-felt need.

You are all familiar with the new Headquarters Building in Toronto, that provides facilities for conducting the business affairs of the Association in an efficient manner. This Headquarters, made possible through contributions from all provinces in Canada, reflects the high degree of co-operation between the provinces and the respect held by the profession for the Canadian Dental Association. It is doubtful if the founders of the Canadian Dental Association envisioned such an organization as we now have. This year we are celebrating its Golden Jubilee and throughout Canada dentists are recognizing this event and paying homage to those who, through many lean years, have held the faith.

The Journal of the Canadian Dental Association has contributed very materially to the stature of the organization and the Golden Jubilee number of the Journal is a credit to the initiative and ability of past and present Publication Committees and

the editorial staff. This number of the Journal depicting the growth of the Canadian Dental Association is an invaluable addition to your library and should be treasured as such.

During the past months I have had looks cast at me and remarks made to me in regard to the number of times the men of B.C. have been at meetings arranging for this Convention and working on other matters pertinent to dentistry. To the ladies I apologize if I have been instrumental in disorganizing their home life. To the profession at large I have no apology to make, for this is our profession and we should be prepared to contribute to its advancement as have men who have built it up for us. To these men with the neglected wives, however, I do offer my very sincere thanks for the manner in which they have discharged any and all duties entrusted to them, and this with a smile and good humour. In correspondence with your incoming President he remarked, "I can foresee the duties of the President of the Canadian Dental Association and I am not at all enthusiastic about my future". Let him take consolation in the facts I have related to you, and know that all will be well. He will have the backing and support of Canadian dentistry. To serve as your President is an honour worth any and all efforts that might be put forward.

DENTAL EDUCATION

What do we find today: No diminution in the incidence of dental disorders; less than one-half of the public receiving adequate dental care; increasing costs, at present exceeding a billion dollars a year, and the estimate that it would require two to three thousand additional dentists to meet present day needs.

Faced as the profession is with a problem of "major magnitude" which no one will deny, the first step toward its solution must be a more or less about face in dental education.

A century of experience has shown that the problem is one that cannot be solved by present day operative measures, nor by the multiplication of dental personnel.

For the present, no doubt, much that is included in the dental curriculum will need to be continued. Rome was not built in a day or dental education in a century. However, if dentistry is to measure up to its responsibilities, its main objective must be research. There is no reason to believe that the cause of dental diseases cannot be found, plus effective measures for their control.—From Editorial in N.Y. Jour. of Dentistry by Dr. Arthur H. Merritt of New York City.

Principles of Antibiotic Therapy

by JOHN B. MACDONALD,* D.D.S., M.S. (III.) Toronto, Ontario

THE term "antibiotic" was introduced by Waksman et al²³ in 1944 and was defined as any substance of microbial origin having an antibacterial action. Since the word is new and since such substances have been used widely for only a single decade, one might be led to the erroneous belief that the concept of antibiosis is of relatively recent origin. Actually antibiotic substances have been known for centuries. Florey¹⁰ noted that fungal products were recommended in medical literature three centuries ago. From time to time, in various parts of the world, methods such as application of mouldy bread to cuts or infections have been recorded¹⁰. In the early part of this century "pyocyanase", a product of *P. pyocyaneus*, was used quite extensively in the treatment of infection, and spraying the throats of diphtheritic patients with this substance was a common practice¹⁰.

Modern interest in antibiotics dates from the isolation of penicillin from the mould *P. notatum* by Chain and Florey in 1940², eleven years after the antibacterial activity of this mould was first noted by Fleming⁹. The unique fact which stimulated interest was that penicillin was remarkably free from toxic effects on humans. Previous history with antibiotic substances had discouraged research because toxicity appeared always to be so high that therapeutic usefulness was limited.

The ratio of antibacterial activity to toxicity continues to be the primary limiting factor in determining the potential usefulness of any antibiotic. Assessed on the basis of high anti-bacterial activity, low toxicity, and practicability of production, there

are only a few of the thousands of antibiotics, isolated since 1940, which are therapeutically useful and available to the clinician today. These may be divided into two groups; first, those that are suitable for systemic administration and secondly, those which, because of toxicity, are limited in their usefulness to local application. The first group includes penicillin, streptomycin, aureomycin, chloramphenicol (Chloromycetin*) and terramycin. The second group includes bacitracin (which has been used systemically but is available only for local application) tyrothricin, polymixin and a few others.

MECHANISM OF ACTION

Only a beginning has been made toward an understanding of the mechanisms by which antibiotics exert their action, but enough is known to affect methods of administration and dosage.

Since the activity of antibiotic substances is directly against bacterial cells, it is necessary to review briefly the nature of bacterial metabolism. Bacteria, like all living forms, attempt to maintain a constant equilibrium with a changing environment. The internal structure of a bacterium is separated from the external environment by a cell membrane which is selectively permeable to various substances. Nutrients pass through the cell membrane into the internal environment. Some of these substances, primarily carbohydrates, which have entered the cell are broken down, releasing large amounts of energy. This energy permits a second type of activity to take place in which new protoplasm is built. Both types of activity are remarkably complex.

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and involve a large number of steps which are catalyzed by a variety of enzymes. The energy yielding mechanisms of respiration and fermentation are known in some detail. Little is known of the steps involved in synthesis of proteins. Suffice it to say that interference with any step, either in assimilation of raw materials through the cell membrane, or in the catabolism of nutrients to yield energy, or in the synthesis of new protoplasm, will of necessity terminate the whole cycle.

The site of action of penicillin is apparently at the cell membrane. It has been shown by Gale¹¹ that organisms that are sensitive to penicillin fail in its presence to concentrate glutamic acid within the cell. In other words, penicillin in some way changes the permeability of the cell membrane so that glutamic acid is no longer available for the bacterium's cellular metabolism. In cells which are dependent on glutamic acid for their complete metabolism this deficiency results in failure of the cell to multiply.

Tyrothricin, an antibiotic, composed of two substances; viz., tyrocidine and gramicidin, also acts on the cell membrane, but in a different way. It lyses the membrane thus destroying the cell's integrity¹². This is similar to the action of many disinfectants and tyrothricin, like disinfectants, is suitable only for topical application because it has the power to lyse membranes of host cells as well as those of bacterial cells.

The sulphonamides, though not antibiotics, provide an example of one way in which intracellular metabolic pathways can be blocked. They are similar in their chemical structure to para-amino benzoic acid and it has been found that they compete with this substance in cellular metabolism¹³. Para-amino benzoic acid (PABA) is a component of folic acid, a vitamin essential for the metabolism of many bacteria. When bacterial cells are supplied with sulphonamides

the latter are metabolized in place of PABA in an unsuccessful attempt to form the folic acid molecule.

These are examples of ways in which antibiotics are known to interfere with cell metabolism. The number of conceivable modes of antibiotic action is as great as the number of essential steps in bacterial metabolism. The spectrum of activity of each antibiotic is limited to those bacterial species sharing the particular chemical structure, enzyme or metabolic pathway which is destroyed or blocked by that antibiotic.

BACTERIAL RESISTANCE TO ANTIBIOTICS

Development of resistance to antibiotics by bacteria is intimately linked with the mode of action of antibiotics. If bacteria develop alternate pathways of metabolism to by-pass the blocked step they will, per se, become resistant to the antibiotic in question. The way in which this happens is not completely settled, but it seems likely that it is the result of mutation of organisms and a natural selection of the resistant strains. Two patterns of resistance have been reported¹⁴. The first, exemplified by penicillin is a slow step-wise development of resistance so that prolonged exposure to gradually increasing concentrations of penicillin may result in the development of highly resistant cells. This mechanism has been demonstrated with staphylococci. The second pattern has been observed with streptomycin. With this antibiotic the change from sensitivity to resistance involves a single step, which suggests that streptomycin may be very similar to an essential metabolite of the cells which are affected by it. Such an hypothesis is supported by the observations of Miller & Bohnhoff¹⁵ that meningococci may change from a state of sensitivity to one of actual nutritional dependence on streptomycin. Obviously these facts limit the clinical usefulness of streptomycin.

The development of bacterial resistance to antibiotics during the

course of treatment is not a serious clinical problem in most instances except when using streptomycin. From a public health standpoint, however, resistance may be of considerable importance. When sulphonamides were first used they were effective against about 90 per cent of gonococcal infections, but by the time penicillin was available, sulphonamide therapy was effective in only 30 per cent of such cases⁵. Whether or not resistance will reach such proportions with antibiotics can not be foretold.

RANGE OF EFFECTIVENESS

The range of effectiveness of sulphonamides and of antibiotics which can be administered by systemic routes is summarized in Table I. In

peutic levels of the triple mixtures are less likely to crystallize out in the kidney. They are still the drugs of choice in urinary infections, bacillary dysentery, and meningococcal meningitis¹⁵ but it is doubtful if they have any place in dental practice.

Streptomycin has two disadvantages. First, as mentioned above, resistant organisms may develop very rapidly, and secondly, it is relatively toxic. Lesions of the glosso-pharyngeal nerve may result from its use and may persist for a long time after the drug is withdrawn⁴. Its main value is in the treatment of tuberculosis.

Aureomycin, chloramphenicol, and terramycin have remarkable similarities. They are all products of actinomycetes; their spectrum of effective-

TABLE I
SPECTRUM OF EFFECTIVENESS OF ANTIBIOTICS

	Sulphonamides	Penicillin	Streptomycin	Aureomycin
Gram pos. cocci.....	±	+	—	+
Staph. aureus.....		Resistance frequent		
Enterococci.....	—	—		
Gram neg. cocci.....	+	+	—	+
Gram neg. bacilli.....	±	—	+	+
Gram pos. bacilli.....	±	+	—	?
Spirochetes.....	—	+	±	+
Viruses.....	—	—	—	effective against some

+ = drug of choice

± = effective

— = ineffective

general, gram positive organisms are sensitive to penicillin and the sulphonamides and gram negative organisms to streptomycin, aureomycin, chloramphenicol, and terramycin, but there is considerable overlapping in this rough division.

With the continued expansion of the antibiotic field the sulphonamides are being used less. They are relatively more toxic than the antibiotics. Kidney damage, sensitization, and agranulocytosis are not uncommon sequelae to the use of these drugs. Kidney damage has been largely overcome by the use of triple sulphonamides which make use of the fact that a saturated solution of one sulphonamide will still dissolve others⁴. Thus thera-

ness is very similar; and they are all preferably administered by mouth in comparable dosages. High dosage of terramycin, however, produces higher blood concentrations than do similar doses of aureomycin²². Due to the similarities of these three drugs, references in this paper will be limited to one of them, aureomycin, which is roughly representative of the group.

METHODS OF ADMINISTRATION

Certain principles concerning the administration of antibiotics are emerging with the increasing knowledge of the mechanisms of their actions. One which has been eminently clear from the beginning is that the drug must contact the organisms.

Thus, unless an infection is superficial, topical use of antibiotics is not indicated. Only by the systemic route can one be confident that the organisms are being exposed to the action of the drug. It was noted above that antibiotics interfere with normal metabolism: they are thus most effective against actively metabolizing or multiplying organisms. Penicillin, in fact, is effective only in conditions which would allow the multiplication of the organism in the absence of the drug⁵. It is therefore logical to establish high initial concentrations in an attempt to control the infection at a stage when the organisms are most susceptible. On the other hand, there is no justification for extremely high doses. The effectiveness of penicillin increases with the dose only to about ten times the minimum effective dose⁷.

During early experience with penicillin, it was felt necessary to maintain blood levels at an effective strength until the infection was eliminated. Eagle⁶ has recently shown, however, that both penicillin and aureomycin exert a toxic effect on bacteria lasting several hours after removal of the drug, during which the organisms do not multiply. It would appear then that intermittent blood levels are satisfactory, since during the toxic period body defences will continue to be active in eliminating the non-multiplying organisms.

Penicillin is best administered by the intramuscular route. Due to destruction of the drug in the gastrointestinal tract, oral administration requires a dosage about 5 times greater which adds unreasonably to the cost. The practice of injecting penicillin directly into infected areas does not seem justifiable. It assumes that the infecting organism or organisms are penicillin-sensitive which is not necessarily the case. Of the many forms in which penicillin is available, procaine penicillin G supplemented with potassium penicillin appears to be one of the most useful in dentistry.

High initial levels are obtained by injecting 100,000 units of potassium penicillin and prolonged effective levels are obtained from 300,000 units of slowly released procaine penicillin G mixed with the above.

Aureomycin administered by mouth achieves an effective blood level which is maintained for a longer period than if given by intravenous administration. Intramuscular administration is contraindicated because of the irritating effect of the drug. The initial dosage varies from 10-20 mg. per kilo of body weight depending on the severity of the infection. It is conveniently divided into three doses administered at hourly intervals. A maintenance dosage requires about 25-50 mg. per kilo per day administered in divided doses at 4 to 6 hour intervals¹⁷.

DENTAL USES

Little purpose would be served in cataloguing the various infections where antibiotics may be indicated. The uses of these drugs may be either therapeutic or prophylactic. Their therapeutic use in dentistry is indicated primarily in the treatment of acute infections. It is difficult to suggest the drug of choice because most oral infections are caused by organisms sensitive to both penicillin and aureomycin, but certain points should be kept in mind when the choice is being made. Some infections are commonly caused by staphylococci (e.g. acute dental abscess, osteomyelitis) and penicillin-resistant staphylococci are being observed with increasing frequency. On the other hand, certain infections (e.g. Ludwig's angina, are more commonly caused by streptococci in which case penicillin is the drug of choice. It should be borne in mind, too, that many oral infections are mixed and may respond better to combined therapy with penicillin and aureomycin than to either alone. (Little is known, however, concerning synergistic behaviour of antibiotics. Jawetz and others noted a synergistic effect of streptomycin and penicillin

against an enterococcus, but found that chloramphenicol actually interfered with the action of penicillin against this organism⁸). Infections caused by the herpes simplex virus may respond favourably to aureomycin therapy⁶. The virus is not sensitive to penicillin.

Antibiotics may be used to prevent post-operative infections. Such prophylaxis may be against local infections anticipated in cases of debilitation, malnutrition or concurrent disease such as diabetes. They may also be used for the prevention of subacute bacterial endocarditis following tooth extraction in patients with a history of rheumatic fever or valvular abnormalities. The bacteremia following tooth extraction which results in lodgment of organisms (usually non-haemolyzing streptococci) on injured heart valves is of short duration¹⁶ probably not more than half an hour. Glaser et al¹² showed that premedication with 50,000 units of penicillin every 2 hours for 24 hours reduced, but did not eliminate, the occurrence of bacteremias following tooth extraction. They point out that protection may nevertheless be gained by immediate exposure to penicillin of organisms which do lodge on heart valves. It would seem wise, therefore, to premedicate at least half an hour before surgery with a dose of procaine penicillin which will maintain an effective blood concentration for several hours.

TOXICITY

Toxic reactions to the use of penicillin and aureomycin are summarized

TABLE 2
TOXIC REACTIONS TO
PENICILLIN AND AUREOMYCIN

	Penicillin	Aureomycin
Skin sensitivity . . .	Common	Rare
Fever	Occasional	O
Sore mouth	Common with troches	Common
Nausea	O	Common
Diarrhoea	O	Common
Anaphylaxis and "Serum sickness" . .	Rare	O

in Table II. Skin sensitivity to penicillin is common¹⁰ but not in itself im-

portant. However, more severe allergic reactions including anaphylaxis have occasionally been reported²³. Penicillin, therefore, should be used with caution in individuals who have had even minor skin manifestations of hypersensitivity. When stain tests are positive, or there is other reason to suspect an allergic reaction, penicillin O may be used instead of penicillin G. Volini et al found that 57 patients who were sensitive to penicillin G failed to show hypersensitive reactions when penicillin O was used²⁰.

The important toxic reactions to aureomycin which may occur are nausea and diarrhoea. The latter may be the result of disturbances in the intestinal flora¹⁷. At least one case of a severe idiosyncrasy to aureomycin with confluent urticaria and respiratory difficulty following within minutes of the administration of the drug has been reported¹.

CONCLUSION

Antibiotics have brought to man an era of unprecedented control over bacterial infection; a control which tends to create an attitude of disrespect for the fearful potentialities of pathogenic bacteria. Such an attitude seems entirely unjustified. Man's battle with infection has been a long one and though he can well be proud of today's control, vigilance is still in order. Bacteria, like man, have the ability to make adjustments to environment and, while it is to be hoped that antibiotics will continue to exert their control it may be that the pendulum will some day swing back again in favour of the bacteria. Watchfulness and early recognition of such a trend may be the key to continued success in man's struggle against infection.

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Endodontics Simplified For The General Practitioner*

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THE purpose of root canal therapy is to retain the tooth with comfort and with safety to the patient. Root canal work can be made a safe operation if intelligently and carefully done. The technique herein described has been so planned that the average dentist can carry it out in his own office with a minimum of equipment and instruments.

MINIMUM REQUIREMENTS OF INSTRUMENTS

The majority of instruments required are found in the average dental office; these include the following: rubber dam, rubber dam punch, frame, clamp forceps, clamps 1 No. 9; Ivory and 2 No. 27 S.S.W.; dental floss, contra angle hand piece, burs No. 558-No. 701 and No. 6; temporary stopping; plastic instruments (double ended); cement slab, spatula, cement and liquid; saliva ejector and napkin holder; fine pointed scissors; college pliers (grooved); syringe, needle and anaesthetic; spoon excavator; mouth mirror; paper points—assorted and large A (Caulks); cotton applicators and cotton rolls; ballburnisher No. 28 S.S.W.; broach holder and barbed broaches (medium). The only additional instruments are: — Bard-Parker sterilizing dish or in its place a large glass butter dish with cover; Kerr's root canal files styles B and D No. 1-6, also reamers No. 1-6; Kerr's spreader No. 3; Kerr's root canal sealer; Kerr's three well sterilizer or in its place, a

homemade well; Sterilizer consisting of a base of plaster of paris about 2 inches thick in which are imbedded 3 wine glasses, 2, 2½ inches in height and 1, 1½ inches in height.

DRUGS

The following drugs are required:—Tincture of mercresin or tincture of metaphen for sterilizing field of operation; Alcohol 90%; Phenol, on a cotton roll to wipe off files after withdrawal from canal, and in which to dip the files to cauterize live remnants of nerve tissue; Sodium hypochloride solutions for irrigation of canals, such as Zonite, Dakin's, or Kerr's Tri-chlor; Antiseptic sealing medicaments: — camphorated chlorophenol (Moyco); Eugenol and glycerite of iodine for pericementitis; Oil of eucalyptus for dissolving old root canal fillings.

STERILIZATION

Three methods of sterilization are employed 1-Boiling, 2-Hot Air Oven, 3-Chemical.

1) *Boiling*—All instruments except mirrors, sharp cutting instruments, files, broaches, reamers and burs are boiled in water or in oil for 20 minutes.

2) *Hot air* — Burs, files, reamers, broaches, spreader, paper points, cotton pellets, applicators, napkins, cotton rolls, masks. The instruments may be placed in test-tubes or in discarded sterile anaesthetic carpules with cotton plugs in necks. This part of the sterilization may be done at home, where space for the oven is not avail-

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*Presented as a table clinic at the Annual Convention of the Canadian Dental Association, at Ottawa, Sept. 1951; and at the Fall Clinic of the Montreal Dental Club, November 1951.

able in the office. Napkins, masks, etc., can be folded and wrapped in brown paper or in kleenex and taken out when ready for use. The hot air oven should have a thermometer. Heat is run up to 320 degrees Fahrenheit and the contents allowed to remain in the oven for one hour at this temperature. If temperature is allowed to go higher, pellets and points etc., will char and solder in instruments will melt.

3) *Chemical*—Zephiran chloride or metaphen disinfectant is placed in Bard-Parker dish or glass butter dish. All instruments not sterilized by the first two methods are placed in this solution together with those taken from water sterilizer, also rubber dam $\frac{1}{2}$ hour before operation.

HAND PIECES

The hand pieces are run in the engine for two minutes in petroleum ether, followed by three minutes in metaphen and then for two minutes in fine oil. Petroleum ether takes out the grease and oil, metaphen disinfects. Oil is not sterile, but pathogenic organisms will not live in it. A swab may be used to hold the hand pieces during sterilization.

CULTURES

The culture medium recommended for root canal work and one in which aerobic and anaerobic organisms will grow, is glucose ascites medium (Difco Laboratories, Detroit, Michigan). This can be obtained through your dental supply dealers or through the medical supply depots. The prepared tubes should be kept in a cool place.

METHOD OF CULTURE TAKING

1. Place dry sterile paper point in canal.

2. Remove paper point from canal with college pliers, holding test-tube in right hand, carry over to bunsen flame.

3. Remove screw top of test-tube with little finger and palm of right hand. Flame neck of test-tube by rota-

tion. Drop paper point into tube. Flame neck again and replace screw top.

4. Repeat with a second paper point.

5. Mark date, patient's name and number of tooth on test-tube label.

6. Incubate for 48 hours.

INCUBATING

In place of a thermostatically controlled incubator, a thermos bottle may be employed. Water is prepared at 105 degrees Fahrenheit, then placed in bottle. A string is tied around the test-tube which is suspended in bottle. The end of the string is caught when the cork is placed. By this time the temperature of the water will have dropped down to the right point. The water should be changed in 24 hours. A small bottle is preferred as it keeps heat better. The bottle should also be heated before the water is placed in it. If at the end of 48 hours, the test-tube appears cloudy, a growth has taken place and the culture is considered positive. If it appears clear, then no growth has taken place, and the culture is termed negative. When two negative cultures have been obtained in succession, the canal is ready for filling.

CONVENIENT SET-UP OF INSTRUMENTS FOR ENDODONTIC CASES

Bracket Table:

A sterile towel, folded in four is placed on the table in the corner nearest to you. Under the top fold, the test-tube or anaesthetic carpules containing the sterilized files, reamers, broaches, broach holder and burs are emptied. Under the centre fold, place the paper points, cotton pellets and rubber dam markers. Under the third fold are placed a mouth mirror, a pair of college pliers, an explorer, a pair of scissors, a double ended instrument and a few cotton applicators.

To the back of the towel is placed the well sterilizer. Zephiran chloride is put in one deep well and in the shallow well. In the third well, pour alcohol.

To one side of the well sterilizer, a tumbler containing a culture tube, and

to the other side a dappen dish with tincture of metaphen are assembled.

Cabinet:

At one side of the cabinet, place the Bard Parker or glass butter dish filled with zephiran chloride and containing the necessary sterilized instruments. At another side, spread out a sterile towel on which are placed the following:—a piece of rubber dam, clamp, forceps, punch, clamps, dental floss, temporary stopping, cement spatula, cement slab, ball-burnisher plastic instruments, cement and liquid.

STEPS IN THE TECHNIQUE FOR THE REMOVAL OF A LIVE PULP OF AN ANTERIOR TOOTH

FIRST VISIT

1. Obtain a good x-ray.
2. Anaesthetize tooth (infiltration).
3. Apply the rubber dam and sterilize the field with tincture of metaphen and wipe off excess with alcohol.
4. Make opening at cingulum with a round diamond point and widen opening with a No. 558 bur and enter pulp chamber with a No. 6 round bur.
5. Place rubber dam markers on long files No. 1-6.
6. Flood pulp chamber with a sodium hypochloride solution.
7. Place a No. 1 file up the canal until binding is felt.
8. Adjust rubber dam marker so that it is flush with incisal edge of the tooth.
9. Remove the file and wipe off on a cotton roll saturated with phenol. Record this arbitrary length on patient's chart. Place the file in the deep glass of well sterilizer.
10. Set the markers on files No. 2-6 to this recorded length.
11. Enter the canal with No. 2 file and when obstruction is felt, give a $\frac{1}{4}$ turn and remove the file, re-enter the canal with the same file and repeat as before as often as may be required until the marker is flush with the incisal of the tooth.
12. With No. 3 file repeat as in No. 11.
13. With a marker to recorded length on a barbed broach, the canal is now entered. When the marker is flush with the incisal edge, the broach is given a slight turn which will engage the pulp. The broach is now withdrawn with the extirpated pulp.
14. The canal is now irrigated. About $\frac{1}{2}$ cc. of Dakin's is drawn up into a luer syringe. The needle is put into the canal, high enough to allow of a thorough flushing of the canal, and loose enough in the canal to allow the liquid and pulp debris to be forced out. A cotton roll is held at the opening into the tooth to catch this out-flow. A similar amount of H_2O_2 is now used. This is followed by another flushing with Dakin's.
15. With files No. 4-5-6, do as in No. 11.
16. Take trial x-ray with No. 6 file in place.
17. Check against recorded length and make necessary adjustments.
18. Irrigate.
19. Repeat filing with files No. 4-5-6, to make certain that all pulp tissue has been removed.
20. Dry canal with cotton pellets and with the large coarse paper points.
21. Seal medication. A fine paper point with the point cut off, is placed in the canal, the antiseptic is taken up by the beaks of the college pliers. The beaks are placed into the opening of the pulp chamber, and as the beaks are separated, the point will absorb the antiseptic by capillary attraction. A small pellet of cotton is now placed over the point in the pulp chamber. With another pellet the excess is wiped off. Over this pellet a little temporary stopping is placed. And finally cement is used to seal the exterior. The occlusion is checked. The patient is dismissed for 48 hours.

SECOND VISIT

1. Apply rubber dam and sterilize the field.
2. Remove the cement, temporary

stopping, cotton pellet and paper point.

3. Dry the canal with a paper point.
4. Take culture.
5. Irrigate the canal.
6. With markers on files No. 1-6, file and enlarge the canal.
7. Irrigate, repeat step No. 6 and irrigate again.
8. Dry the canal.
9. Seal antiseptic as in step No. 21 of first visit.

THIRD VISIT

If culture is negative, repeat the steps as in second visit. If culture is positive, be careful not to go too near the apex with the files, repeating the same operation as in the second visit.

FOURTH VISIT

If the first two cultures are negative, the canal may be filled at this sitting, otherwise treatments must be repeated until two successive negative cultures are obtained.

1. Apply the rubber dam, sterilize field, remove the dressing.
2. Irrigate.
3. Dry the canal.
4. Using the x-ray as a guide, select a gutta percha point of approximate dimension of the canal. Place the point in the canal and cut off the exposed end flush with incisal. X-ray.
5. If the gutta percha point projects through the apical foramen, determine the length of this projection, and cut the length off the gutta percha point. If gutta percha point does not quite reach the apex and if the deficiency is 1 mm. or less, the canal may be filled. If this space is 2 mm. or more, it will be necessary to try other points and check with the x-ray until a happy medium is reached.
6. Fill the canal.

TECHNIQUE FOR FILLING ROOT CANAL

About 15 or 20 gutta percha points, with the tops cut off slightly are placed in tincture of metaphen for several minutes. From here they are

transferred to alcohol for a few minutes. They are then removed and placed under the fold of a steril napkin and allowed to dry. The point, used in taking the trial x-ray, is kept aside for easy identification, as it will be the first point to be placed in the canal. Kerr's sealer is mixed. The trial point is picked up with a pair of grooved college pliers and the apical end is rolled in the sealer. It is placed in the canal with a pumping motion and pushed apically until the blunt end is flush with the incisal edge of the tooth. Kerr's spreader No. 3 is placed into the canal and forced so as to condense the point against the canal wall. The spreader is revolved from side to side several times until it can be released from the canal without much effort. Another gutta percha point is picked up in the pliers in the right hand and buttered with the sealer. The spreader is removed with the left hand and in its place this second point is placed in the canal. The spreader is placed again and revolved. Another gutta percha point is placed in the canal. This process is continued until no additional points can be added. The gutta percha in the pulp chamber is cleaned out and the excess sealer is wiped off with xylol. The cavity is dried and temporarily filled with cement. The occlusion is checked. An x-ray is taken. The permanent filling is placed at a later date.

STEPS IN THE TECHNIQUE FOR THE ENDODONTIC TREATMENT OF A PUTRESCENT INFECTED ANTERIOR TOOTH

FIRST VISIT

1. Obtain a true x-ray and a vitality test.
2. Apply rubber dam and sterilize field.
3. Make opening at cingulum, if none already exists. Where a proximal cavity is present, it should be cleaned out and a temporary filling placed. Access to the canal of a tooth should be in line with the long axis of the tooth.

4. Irrigate as previously described.
5. Mechanically clean the canal with files No. 1-2-3, keeping within incisal 2/3 of the canal.
6. Irrigate.
7. Whip with No. 2 file, irrigate and repeat this procedure several times. Whipping consists in placing the file in the canal, and keeping it well within the incisal 2/3 of the canal and rotating it for some time. The effect of this whipping action is to make the irrigating solution combine with the pulp debris of the canal and be forced out of the canal in the form of a ropey material.
8. Dry the canal thoroughly.
9. Seal antiseptic. Check occlusion.
10. Dismiss patient for 48 hours.

SECOND VISIT

1. Apply the rubber dam and sterilize the field.
2. Remove the dressing.
3. Dry the canal.
4. Take culture.
5. Irrigate.
6. With markers set slightly short of length of root canal determined by the x-ray, mechanically clean the root canal with files No. 1-6.
7. Whip with file No. 2, irrigate and whip several times.
8. Dry the canal.
9. Seal antiseptic.

THIRD VISIT

1. Apply the rubber dam and sterilize the field.
2. Remove the dressing.
3. Dry the canal.
4. Take culture No. 2.
5. Irrigate.
6. If first culture is negative, place markers on files No. 1-6. With file No. 1 go up until binding is felt and place the marker flush with the incisal edge of the tooth.
7. Adjust the markers on other files to the same length.

8. Proceed with files No. 2-6 until the markers are flush with incisal edge of the tooth.
9. Irrigate, whip with file No. 2, irrigate and whip several times.
10. With large gutta percha point, take an x-ray to check the progress in the length of the canal.
11. Dry the canal.
12. Seal antiseptic.

If the first culture is positive, after having the second culture at this sitting, continue cleaning the canal making sure that the files are kept short of the apex.

FOURTH VISIT

1. Apply the rubber dam and sterilize the field.
2. Remove the dressing.
3. Irrigate or if necessary take another culture and then irrigate. If first and second cultures are negative, proceed to fill the canal. Follow from steps No. 3-6 on the fourth visit of the technique for the removal of a live pulp of an anterior tooth.

SUMMARY

Radical exodontia is on the wane. We have entered a period, now, of thorough understanding of the physiologic and pathologic significance of teeth. The tendency of all diseases is to recover, and there is no reason that infection at the root apex of a tooth should not be as easily conquered as in any other part of the body. If the case is handled with strict asepsis and care, and all organic tissue removed from the canal and the canal hermetically sealed, the incidence of complete recovery and the permanent retention of that tooth is as high as for any other tooth in the mouth. It is the earnest wish of the writer of this article that the foregoing technique will be attempted by all who feel that saving a tooth is indeed a noble act.

1410 Stanley Street.

"Losing your temper is impossible, because it always stays with you. As long as you have to live with it, better treat it with respect."

Everyday Oral Surgery

by SAMUEL M. BORDEN* D.D.S., M.S.D.

SINCE the time allotted to me is very limited, I shall immediately proceed to the first subject, that of incisions and flap operations.

THE FLAP

The main purpose of flap retraction is access. Regardless of whether the flap is made for removal of bone, root tips or residual infection it must be large enough so that the operator can clearly see the entire field of operation. It must be sufficiently large so that during surgical manipulation, soft tissue laceration is avoided. It must be so reflected that following the operation there is a solid table of bone on which to replace the flap.

The tendency is to make incisions too short. Do not be afraid to make your incisions and retractions large enough. Healing takes place not in the length of the wound, but across its width. Therefore, a long incision will heal just as quickly as a shorter one.

While doing graduate work in Chicago, I spent several months doing a histological study of healing following flap retractions in both humans and dogs.

A fixed point was marked on a tooth by means of a bur and the distance from this point to the gingival tissues was recorded. A flap was then retracted making certain that all soft tissue was removed from around the neck of the marked tooth. After five minutes the soft tissue flap was replaced and accurately sutured into position.

Following healing it was found that the distance from the fixed point on the tooth to the gingival tissues had increased. The amount of recession varied inversely with the thickness of the tissue. That is, the thinner the tissue the greater the recession, the

thicker the tissue the less the recession.

Applied clinically this means that it is permissible when dealing with the thicker palatal and buccal tissues in the posterior regions of the mouth, to reflect flaps which involve the necks of adjacent teeth as in Figure 1.



Fig. 1

When dealing with the thin labial tissue around the anteriors it is advisable not to involve adjacent gingival tissues but to limit the reflection to the involved tooth. This can best be done by using a vertical incision starting in the papilla adjacent to the tooth. A short second incision can be made coming off the first at an angle. This facilitates suturing as the triangular flap should accurately fit into the triangular incision as in Figure 2.

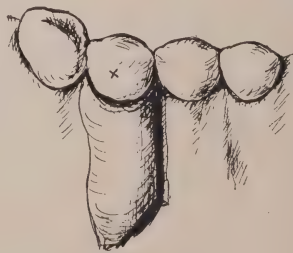


Fig. 2

A vertical incision starting in the centre of an adjacent tooth should never be made. This usually results in a V-shaped deficiency at the gingival margin with resultant cervical

*Paper presented to the Alpha Omega Dental Fraternity, December 5, 1951, in Winnipeg.

sensitivity. This is clearly illustrated in Figure 3.



Fig. 3

When this research project was begun there was a controversy between the oral surgery and pathology departments. The histo - pathologists claimed that once you had a detachment of the gingival tissues and the periodontal membrane, as in a surgical flap, you could not get a true connective tissue reattachment. The oral surgeons argued that clinically once healing had become established there was no evidence of a flap ever having been retracted.

The histological specimen in Figure 4 shows what actually happens during the healing process. As can be seen by the zone of granulation tissue at X, detachment of the periodontal membrane fibres does not occur at the cementum. Instead, during flap retraction there are some fibres which remain attached to the tooth. When the flap is replaced there is a union of these fibres in the region X as shown on the diagram.

ROUTINE POST-OPERATIVE CARE OF EXTRACTION WOUNDS

I cannot emphasize too strongly that a sound blood clot is the best possible dressing for the routine extraction wound. The operator must do everything possible to obtain and maintain a good clot which will entirely fill the socket.

If, as often happens due to excessive vasoconstriction, no blood can be seen in the socket the following procedure is undertaken:

a) the buccal and lingual plates are pressed together with the fingers.

b) a pair of cotton pliers is inserted into the socket and an attempt made to stir some blood into the area, care being taken not to spread any infection which may be present.

c) if this fails, a number 5 round bur is used in several places to perforate the buccal plate through the lamina dura into the cancellous bone.

d) as a final effort a small pair of scissors may be used to notch the ligamentum circulare which completely surrounds the neck of the tooth.

It is essential that the socket be left free of all foreign matter, such as bone spicules, root tips and infected tissue. Then the patient is asked to close on a piece of gauze for five minutes. Following this the socket is sprayed with alginic acid from an insufflator. This material is an excellent haemostatic and adequately protects the underlying blood clot.

The patient is advised not to expectorate excessively as the negative pressure set up by the sucking which precedes this act has a tendency to dislodge the clot. The question of whether or not the patient be allowed to rinse following surgery is still a moot one. The tendency seems to be for most operators to warn their patients against rinsing. Clinically I am not certain that there is much basis for this belief. I am aware of an experiment where 200 patients were divided into two equal groups, one group being allowed to rinse with water post-operatively, the second not. The incidence of dry socket was the same in both groups.

The only time dressings are used in the office is when the surgery has been very traumatic. One-quarter inch iodoform gauze is a good carrier for the anodyne drug of choice. Oil of cloves or a mixture of equal parts of guaiacol and glycerin seems to work very well to allay post-operative pain.

Where there is doubt as to the complete removal of infection, a drain of

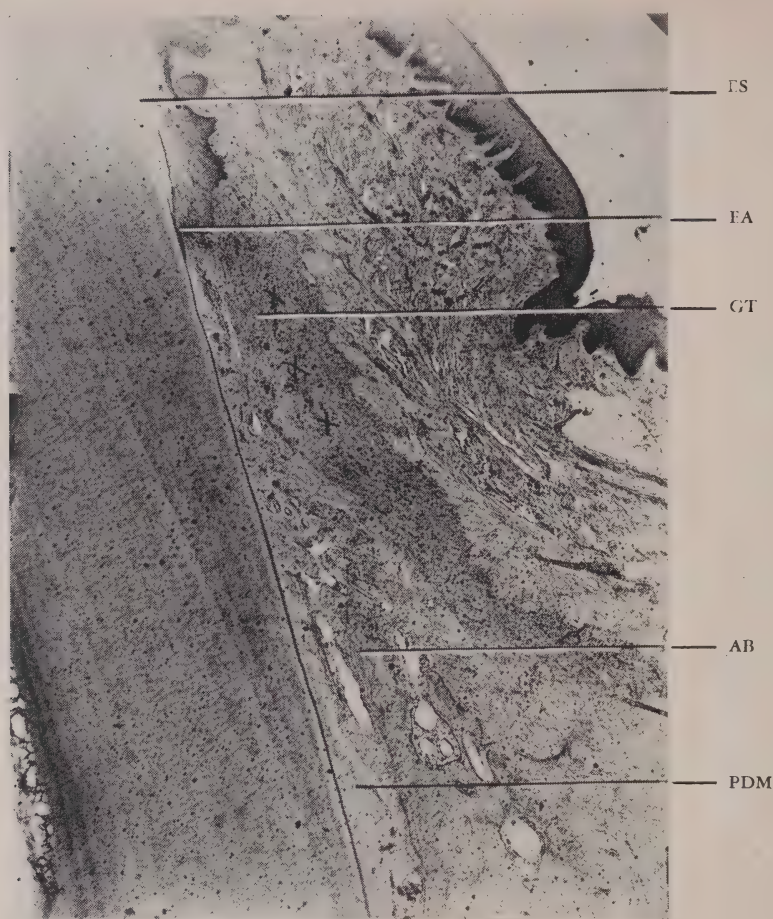


FIG. 4

Labio-lingual Section of One-Week Healing in the Dog.

L.P.H. and E. Stain.	GT	Granulation Tissue
ES Enamel Space	AB	Alveolar Bone
EA Epithelial Attachment	PDM	Periodontal Membrane

rubber dam or iodoform gauze should be allowed to protrude from the wound for 24 hours. This should be changed regularly until no longer required.

To my knowledge and from my own experience the use of any chemotherapeutic agent or antibiotic substance in a socket is unwarranted and has no practical benefit in preventing post-operative discomfort. The necessity for obtaining and maintaining proper blood levels of penicillin has been repeatedly stressed in the litera-

ture and need not be gone into at this time. Suffice it to say, that if the operator wants his patient to have the benefits of penicillin, 400,000 units (300,000 units procaine penicillin G plus 100,000 units sodium penicillin G) should be injected intramuscularly and later repeated if necessary. If the operator prefers not to inject the penicillin himself, the patient should be referred to his physician.

DRY SOCKET

If a patient returns with a full-

blown dry socket this procedure is followed routinely:

- a) gentle irrigation with warm water
- b) careful removal of decomposed tissue
- c) dressing of iodoform gauze with an anodyne drug, such as oil of cloves
- d) after the dressings have been changed several days and when most of the pain has disappeared, the socket is dressed with gauze saturated with compound tincture of benzoin. This drug stimulates the formation of granulation tissue and thus hastens the healing process.

In addition to local treatment the patient with a dry-socket frequently requires systemic medication. It is generally conceded that the physical well-being of an individual is often influenced by his mental state. It was therefore decided to add a stimulant like benzedrine to the regular analgesic drugs. The following capsule when taken once every 4 hours has produced excellent results for the reduction of pain:

Codeine Phosphate grns. SS

Phenacetin

Acetyl Salicylic Acid aa grns. iiss

Benzedrine Sulph $2\frac{1}{2}$ mgs.

Sac Lac q.s. ad grns. X

PREMEDICATION

This valuable adjunct to oral surgery is not used nearly enough by our profession. We all know that mental anxiety and fear of pain is the prime cause of delayed dental treatment. We, as dentists, are forever striving to improve our local anaesthesia techniques so as to provide painless dentistry to our patients. Yet, we hesitate to use methods, which are readily within our grasp to allay our patients' mental pain which is far greater than any physical pain which we can ever inflict.

Seconal sodium, gr $1\frac{1}{2}$, with the capsule pierced on both ends for faster action, is used for adults in the office. It is taken $\frac{3}{4}$ of an hour before operating time and is usually found to be

sufficient for the average individual. If necessary another capsule can be given for added sedation without any fear of depression.

Where more rapid sedation is desired the operator can use demerol hydrochloride in conjunction with the local anaesthetic. A 100 mgm. dose, which is adequate for the average adult, is withdrawn from a vial into a barrel syringe. This is then injected through the rubber stopper of the anaesthetic carpule, an equivalent amount of anaesthetic having previously been expressed. The onset of sedation can usually be recognized within 20 minutes. This method has little practical benefit, for most individuals fear needle puncture as much as the surgery and therefore would prefer to wait a little longer using the conventional capsule technique.

For children, the elixir of nembutal in either the orange or chocolate flavour has proven itself to be an ideal sedative. One teaspoonful of this palatable mixture equals $\frac{1}{4}$ gr. A half grain is usually sufficient for the average child of 5, with $\frac{1}{4}$ gr. being added for every additional five years of age.

ORAL SURGERY HINTS

A.—Of all the dental surgical instruments, the elevator is the one which is mishandled most frequently. This instrument was not meant to be used like a screwdriver. In order for the proper application of force the index finger must be held close to the working edge. At no time must this instrument be used across the mouth but always from the same side as the tooth which is to be extracted. Application of force should not be initiated until the elevator is firmly settled. This can frequently be facilitated by the digging of a small trench around the buccal surface of the tooth or by making a hole in the buccal, pointing downwards at a 45 degree angle. The elevator tip is then inserted, either into the trench or the hole, and force applied utilizing the buccal plate of bone as a fulcrum.

This is particularly applicable in the removal of a crowded lower bicuspid which is directed lingually. Since there is not sufficient width for the application of the beaks of a pair of forceps, this tooth must be delivered by means of elevators.

Never, must an adjacent tooth be used as a fulcrum, unless it too is to be removed subsequently. Any buccal bone, which has become eburnated as a result of elevator pressure, should be removed, to decrease post-operative discomfort.

Elevators should always be used according to the curvature of the roots. Force must be directed so as to unhook the curved roots from the surrounding jawbone.

B.—Where several teeth are to be extracted in a series, they can be loosened by wedging a straight elevator between them and a slight lateral rotatory force applied.

Where the lateral, cuspid and first bicuspid are to be extracted at one sitting and the cuspid is expected to be particularly firm, the lateral and bicuspid should be removed first. Then the cuspid should be grasped firmly with forceps applied mesio-distally rather than by the conventional labiolingual approach. A slight rotatory force followed by a mesio-distal luxation should then be sufficient to release the tooth.

Where a tooth is found to be particularly solid and difficult to budge, slight movement should be obtained by buccolingual luxation. Then the operator should leave the tooth alone for a full two minutes. Upon further application of force it will be noticed that the tooth has loosened considerably during the waiting period. If this procedure of luxation and waiting be repeated several times there is much less danger of tooth fracture, for less force will be required to extract the tooth.

C. — For painless injections the anaesthetic carpule should be warmed slightly before being used. The needle should not be pushed into the tissues

but instead the taut tissues should be pulled over the needle. At the instant of needle insertion the operator should do something to distract the patient. This can take the form of pinching the lip or lightly pressing the back of the head. Anything, so long as the patient's mind is diverted at the exact moment that the needle touches the tissues.

Whenever possible injections should be made through areas which have already been anaesthetized. For instance if 1|123 are to be extracted infiltrate the labial of 1| first. When this area has become anaesthetized insert the needle horizontally on the right side of the frenum and proceed toward the left, injecting slowly as the needle progresses. In this manner all four teeth can be anaesthetized with the patient being aware of only one needle puncture.

The tissue overlying the anterior palatine canal is very sensitive, with the result that the nasopalatine injection is very painful. The discomfort from this injection can be minimized by first depositing a few drops of solution into this area from the labial side carrying the needle through the papilla between the centrals.

Very often during deep curettage as in apicoectomy for 1|1, or during the removal of palatally impacted cuspids, severe pain can be felt near the floor of the nose. These nerve filaments can be temporarily paralyzed by the insertion into the nostrils of a little cotton impregnated with a good topical anaesthetic such as nupercainal or xylocaine ointment.

D. — No discussion in oral surgery could possibly be complete without touching upon, what is probably the most controversial subject in dentistry, that of hydrotherapy. The literature is replete with articles elaborately stating the pros and cons of both heat and cold. There are so many diverse opinions by some of our eminent authorities that there is little wonder that the average practitioner finds himself in a

quandary. In my own hands, the following has produced the best results:

Cold, when used, is applied intermittently, one-half hour on and one-half hour off. It is utilized for four hours immediately following surgery for the purpose of reducing oedema due to operative trauma. It is also applied in the very early stages of acute infection before suppuration has commenced.

Heat is applied extra-orally after suppuration and swelling has started. It is applied continually because of the increased blood supply which it will bring to the area with the attendant formation of a leukocytic barrier and subsequent localization of the infection.

F.—There also seems to be some confusion as to the proper time to extract teeth, although with the increased use of antibiotics in oral surgery, this problem has correspondingly decreased in importance.

I like to use temperature as my guide. If the patient presents himself during the first twenty-four hours of infection, there is still no swelling, but usually a slight redness of the area.

The tooth is tender to percussion, the patient's temperature is generally between normal and 99.5 degrees. At this time, in an otherwise healthy patient, the extraction can still be performed, although there is often some difficulty in obtaining good anaesthesia.

Once swelling has started to take place and the temperature has risen, it is advisable to do everything possible to obtain localization. This is accomplished by the use of antibiotics, hot saline rinses and hot fomentations. The patient is best kept in bed and treated systemically by the forcing of fluids, institution of methods for proper elimination and sedation with analgesic drugs. Once localization has taken place the temperature will drop. This is the opportune moment for incision and drainage. Swelling alone, without fever is no contra-indication for extraction, provided anaesthesia can be obtained without injecting through infected tissue. If this is mandatory before local anaesthesia can be established, the operator must either wait for the tissues to return to normal or resort to a general anaesthesia.

The incentive to produce is the strength of the Western democracies. James F. Lincoln, executive head of the Lincoln Electric Company, says that "only by making proper use of incentives can society take full advantage of the tremendous possibilities of the individual."

Mr. Lincoln has stated his belief that money, short hours, safety and security, are not the prime incentives which cause people to strive mightily for success. The one incentive which outweighs all others, according to Mr. Lincoln, is RECOGNITION OF OUR ABILITIES BY OUR CONTEMPORARIES AND OURSELVES. "The gaining by our skills of the feeling that we are a man among men. The feeling that we have desirable abilities that others covet. The feeling that we are different in some way or ways that others admire and wish to emulate. The feeling that we are outstanding and are so recognized by our fellows . . . That is the incentive that almost completely determines our efforts in life."

We cannot expect to find this primary incentive under any state control system. Under such a system, man becomes merely a cog in the machine of the state and freedom of choice disappears under the blows of regimentation.

The free enterprise system provides the atmosphere in which incentive can be offered to the individual. It is up to all of us—management, labour, government and consumer—to see to it that that atmosphere is preserved and that incentive is actually provided.

The Forum

SMOKING

by CHARLES BAKER, O.B.E., M.D., F.R.C.P.

A Clinical Lecture delivered in Guy's Hospital Medical School
Condensed from *Guy's Hospital Gazette*, Dec. 15, 1951

A social drug evokes emotional bias, and too many of the pronouncements about tobacco and alcohol clearly show either the hard dogmatism of the reformer or the easy tolerance of the habitué.

Incidental to his discovery of America, Columbus discovered tobacco; both have had far-reaching effects. It was in 1492 that he first met the primitive cigarette of tobacco leaf rolled in the shucks of maize, smoked by the Indians of San Salvador. The Spaniards took the tobacco plant back from the New World and its cult quickly spread throughout Europe, and later to the Near and Far East. In this century the consumption has increased enormously with the convenient cigarette, the power of advertising, and the woman smoker.

The Scotsman, James the First, provided a good example of the effect of official disapproval. He increased the duty by 4,000 per cent and it was gladly paid by the new devotees of the herb.

In 1634 the Czar ordered whipping for the first smoking offence, execution for the second, and amputation of the nose for snuff takers; in 1670 Peter the Great smoked and all prohibitive laws were abolished.

The wish to imitate and to conform is the reason why most of us start to smoke, but only a few individuals continue with these drugs for social reasons only. For the remainder, which includes all the millions in the world who smoke heavily, tobacco is primar-

ily used for its effect on the body alone and not for its social link. It is a personal drug.

The main reason why we smoke is that tobacco contains nicotine and it is the absorption of nicotine into the body which is primarily the cause of the smoking habit.

Naturally the speed of smoking, the length of cigarette left unsmoked, and the amount of smoke which is retained in the mouth or inhaled into the respiratory tract will differ according to the smoker's habit.

The effect of nicotine differs in degree in individuals whether non-smokers or smokers and this personal variation is also seen if nicotine is injected rather than absorbed by the normal routes. It is most important to realize that there is no definite limit of over-smoking and the best guide to this is the smoker's symptoms.

Nicotine is primarily used for its effect on the higher centres of the brain. People smoke because they like to and this must not be forgotten when interest is focussed on its effect on other parts of the body. It is clearly a sedative effect due to depression of the higher centres and has the same effect in cutting off distracting and disturbing sensations and of allaying an anxiety as alcohol. To the smoker, tobacco is a help in concentrating on a specific task; for instance he finds it difficult to work in a library where this help is denied him; this does not mean that it increases his mental efficiency. Nor are the achievements of smokers

and non-smokers relevant. Great men will achieve greatness whether they smoke or not and the failure in life is likely to console himself by adopting social customs to excess. There are no controls, for I know of no evidence of the effect of smoking on identical twins, nor is there a non-smoking Churchill.

Mark Twain said it was easy to give up smoking for he had done it thousands of times. Limitation of the drug is more difficult than complete abstinence.

Tobacco is certainly a large factor in dyspepsia and disordered function, particularly in certain susceptible individuals, though it must be remembered that other irritants, nervousness and anxiety may contribute to the same symptoms.

Gastritis appears to be common in the heavy smoker and the rarer tobacco chewer, but there are likely to be other associated irritants. The evidence that smoking causes or even contributes to peptic ulcer is not strong. That smoking retards the healing of ulcers has more support, though it is difficult to be certain, for the criteria of healing are not absolute. The patients' symptoms are not good evidence for the smoker may well get dyspepsia despite his healed ulcer, and the abstainer will naturally wish to be rewarded for his effort; nor is radiological evidence as conclusive as is sometimes maintained. There has been a more tolerant attitude to smoking in ulcer patients of later years. Personally, I tell ulcer patients that excessive smoking may be a factor in recurrence, that there is evidence that it delays healing, and that to stop smoking is the best way to avoid excess in their own individual case. It is then up to them. If I had an ulcer I would decide to stop smoking but I can say no more than that.

More work on the effect of smoking on the cardiovascular system has been done than on other functions of the body. It is established that the effects produced by smoking are due to nico-

tine and vary directly with the amount absorbed.

The pulse rate increases; an average rise to 36 beats with two consecutive cigarettes or injection of 2 mgm. nicotine was found in one series of experiments, and an average rise of 19 when 6 mgm. nicotine was injected in another.

Both systolic and diastolic pressures are raised to as much as 20 mm. of mercury. The effect is a rapid one during smoking or immediately after injection of nicotine and there is a return of pulse rate and pressure to basic level within 15 minutes.

The effect of smoking in health is therefore to cause peripheral constriction and to increase slightly the work of the heart at rest. There is no evidence as yet that it affects coronary blood flow.

Thrombo-angiitis obliterans or Buerger's Disease is rare in non-smokers and most of the sufferers have been heavy smokers. There is a strong case that tobacco does have a bad effect on those who have contracted the disease and that the conditions improve when the patient stops smoking.

There is no evidence that hypertension is caused or influenced by smoking.

It is well known that angina may be produced by tobacco. In practice, it is obviously unwise to encourage angina by smoking and the amount should be rationed in the same way as other productive factors such as exercise. One must not forget the sedative factor of smoking and withdrawal could well increase anxiety, restlessness, and irritation which are no less important factors. On the present evidence complete abstinence from tobacco is no more indicated in angina than complete physical inactivity, except when a recent or incipient infraction is suspected.

There has been in the last twenty-five years a remarkable increase both in the recorded death rate and in autopsy records of cancer of the lung.

The statistical evidence of Doll and Bradford Hill is particularly convinc-

ing. There seems to be no escape in fallacies of sampling, interviewing, or control series, from their conclusion that "smoking is a factor, and an important factor, in the production of carcinoma of the lung."

It seems that pipe smoking carries a smaller risk of lung cancer than the cigarette. Apart from statistical surveys there is also circumstantial evidence indicating the cigarette as a factor in lung cancer. The incidence in different countries corresponds to their total consumption of cigarettes. Great Britain has the highest consumption in Europe and appears to have the highest incidence of cancer.

Chronic irritation from a hot pipe is certainly a factor in epithelioma of the lip. It would seem that smoking exposes the bronchial tree to some substance which is at least a factor in the development of cancer.

Smoking does not affect fecundity, pregnancy, or the foetus, and the amount of nicotine in the milk of the most hardened smoker is not enough to affect her child. Smoking is unlikely to have any direct effect on longevity, for though some figures have shown a decreased expectancy of life in heavy smokers, these are more likely to be immoderate or careless in other respects.

GRIN AND BEAR IT

By Lichty



"Is begging you to remember, Comrade Commissar, that drill is not glorious Soviet invention... is invented by cruel capitalist."

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A REVIEW OF COSTEN'S SYNDROME

by F. W. CRADDOCK, B.A., M.S.D.

Associate Professor of Prosthetic Dentistry, University of Otago, Dunedin, New Zealand

Condensed from Br. D. Jour., Oct. 16, 1951

A syndrome is defined as a group of concurrent symptoms characteristic of a disease. Although the disease which Costen (1934) described was essentially a temporomandibular arthrosis, he was concerned with particular causes and aspects of such arthroses, namely, those having a purely dental origin and producing characteristic facial, head, and oropharyngeal pain.

Symptoms which in whole or part constitute the Syndrome:

(a) *Ear Symptoms:*

1. Tinnitus (ringing noises).
2. Stopping or stuffy sensation in the ears.
3. Vertigo (giddiness, dizziness).
4. Mild catarrhal deafness.
5. Pain in or about the ears.

(b) *Joint Symptoms:*

1. Tenderness on palpation.
2. Clicking of the joint on movement.
3. Pain on movement.
4. Excessive movement.
5. Limited movement.

(c) *Head Symptoms:*

1. Typical sinus headache, e.g. frontal.
2. Pain over vertex, occiput, or post-auricular areas.
3. Neuralgia in various locations, e.g. maxilla, side of mandible, and neck.

(d) *Nasopharyngeal Symptoms:*

1. Painful, burning, or pricking sensation in the tongue. (Syn. glossalgia, glossodynia.)
2. Similar sensations in the throat.
3. Similar sensations on the side of the nose.

The immediate cause of pain was held to be posterior superior displacement of the condyle in relation to the inter-articular disc and glenoid fossa,

that is, a retroposition. Displacement or retroposition in this sense always refers to the condyle-fossa relation with the teeth in occlusion. It is reasonably assumed that there can be no backward displacement of the condyle when the mandible is in the physiological rest position.

It is helpful in diagnosis to distinguish three ways in which retroposition can arise:

- (1) *Simple Overclosure*—This may occur either with natural or artificial teeth.
- (2) *Unilateral Deflection*—In this case only one condyle is retroposed. The condition is rare but it is seen occasionally in partially edentulous mouths.
- (3) *Bilateral Deflection*—It might be expected that posterior displacement of both condyles would be found only in the presence of natural teeth, and most commonly when only upper and lower anterior teeth remain. In this case, the total force of mastication falls on the anterior teeth.

In addition to the dental causes of malrelation between condyle and fossa so far discussed, two other causes of temporomandibular arthrosis may be associated with the syndrome.

- (1) *Trauma* — Injury to the inter-articular disc may result from a direct blow on the chin, as in a fall, kick, or similar accident. A general state of arthritis does not usually extend to the temporomandibular joint. When it does, the symptoms are not characteristic of the syndrome.
- (2) *Functional Overload* — The temporomandibular joint is a pressure-bearing joint. Provided that the relations of condyle to inter-

articular disc are normal and the patient has a full complement of natural teeth in good occlusion, it is difficult to see how an overload could arise. It is well to notice, however, that the loss of posterior teeth, by concentrating masticatory forces in the front of the mouth, does increase the load on the joint for any given muscular force.

TREATMENT

The nature of treatment follows logically from the nature of the malocclusion and may include one or more of the following procedures:

Rebasing of old dentures.

Construction of new dentures.

Construction of partial dentures.

Use of onlays on partial dentures.

Occlusal restoration with inlays, crowns, or bridges.

Occlusal equilibration in centric and eccentric positions.

Orthodontic treatment or extraction of malposed teeth.

All these and similar measures are directed to producing an occlusion which will be in harmony with centric relation (rest position) at an appropriate jaw separation. In its simplest terms treatment thus consists in providing a comprehensive dental service which will restore normality to the masticating system as a whole by the application of principles which are already well known and common to the various specialties including conservative dentistry, orthodontics, periodontics and prosthetics. Such comprehensive dental care will also have preventive value.

The existence of Costen's syndrome gives point to the fact that dentistry consists of more than filling holes in teeth, and that the benefits of dental care and the penalties of neglect are wider than is popularly supposed.

ERADICATION OF GAGGING REFLEX FOR FULL DENTURE PATIENTS

by CHARLES W. LINCOLN, D.D.S., Pasadena, Calif.

Condensed from Jour. of Oral Surgery, Jan. 1952

Gagging, as experienced by people wearing dentures, is a most distressing condition. It has been found in most instances that if the patient will wear the denture continuously for a sufficient period of time a tolerance will be built up and the gagging reflex overcome. In some instances, however, there remains a constant lack of tolerance on the part of the patient, in spite of various mechanical aids, such as extending the denture, increasing the postdam pressure, or constructing a palateless denture. In these rare cases, I have resorted to the injection of alcohol and, in all cases, have obtained immediate relief.

The soft tissues overlying the approximate junction of the hard and soft palate are painted with a mixture of one part tincture of iodine and one part tincture of aconite, and the tis-

sues dried by a blast of warm air. As a result of this painting the junction of the hard and soft palate is indicated by the variance in colour of the tissues. Now the lesser palatine foramen is located on the posterior margin of the palatine bone. About 0.5 cc of procaine hydrochloride is injected into the soft tissues approximately 4 mm. distal to the foramen, on either side. Allowing about one minute for the anaesthesia, the denture is inserted to make certain that the gag reflex has been eliminated. Should results prove satisfactory, the denture is removed, and about 10 minims of 190 proof alcohol is injected into the same regions. This causes a slight sensation of fullness in the pharyngeal wall. The effect of the alcohol usually wears off after a few months, and by that time the patient is free of complaints.

TEETH AND GUMS IN PREGNANCY

by I. I. WILSON, B.D.S., and R. S. W. SKINNER, B.A.

Conclusions of paper in New Zealand Dental Journal

1. A survey of tooth and gum conditions in 321 pregnant, 38 post-partum, and 80 non-pregnant women was carried out by clinical examination.

Information regarding care given to the teeth was elicited by questioning. The maximum temperature of the pregnant women during their puerperium was noted.

2. Pregnancy is not a factor in the aetiology of dental caries.

3. Regular and frequent professional dental attention is of value in maintenance of dental health, and should be carried out during pregnancy as well as at other times.

4. Tooth cleaning may be of some value if carried out thoroughly and promptly after meals, but as generally practised is of no value whatsoever.

5. 30.1% of all women examined were edentulous.

6. Pregnancy has a specific deleterious effect on the gums, which operates at least throughout the last 7 months of pregnancy. Recovery is fairly rapid after parturition.

7. There is no correlation between post-partum pyrexias and gum pathology.

8. There appears to be a definite relation between post-partum pyrexia and tooth pathology, possibly due to the presence of quiescent apical abscesses causing haemotogenous infection of the placental site.

9. Maoris are more susceptible to gingivitis and less susceptible to caries than Europeans, in spite of the poor dental care practised by the Maoris as a whole.

ANNOUNCEMENTS

● **CHICAGO DENTAL SOCIETY ANNOUNCES ITS TWELFTH ANNUAL PRIZE ESSAY COMPETITION:**—The Chicago Dental Society again offers a \$500.00 award for the best essay submitted in its annual essay contest. This year marks the twelfth year of competition. These essays must represent original investigations and contain some new, significant material of value to dentistry.

The author of the prize-winning essay will be invited to present it at the 1953 Mid-winter Meeting of the Chicago Dental Society next February.

To be able to participate in the prize essay competition, it is necessary that the contestant be a member of the American Dental Association or affiliated with a recognized dental institution. The rules are simple and fair and all contestants have an equal opportunity to win.

Application forms may be secured by writing to the Chicago Dental Society, 30 North Michigan Avenue, Chicago 2, Illinois. The completed forms must be filed with the Society before September 1, 1952.

● **THE 80th ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION** and the annual meetings of 38 related organizations will be held in the Public Auditorium, Cleveland, Ohio, October 20-24. More than 5,000 professional public health workers from all parts of the free world will attend.

● **THE AMERICAN ACADEMY OF DENTAL MEDICINE** will hold its annual Mid-Winter Meeting and Luncheon at the Hotel Statler in New York City on December 7, 1952, 12:30 P.M.

From 2 P.M. to 5 P.M., there will be a symposium on "Pain", discussed by Drs. R. J. Behan, Theodore Blum and Samuel C. Miller, with Dr. Joseph L. Bernier acting as Moderator. All members and interested dentists and physicians are cordially invited. For reservations, address Dr. J. Englander, 2616 Hudson Blvd., Jersey City, N.J.

ANNOUNCEMENTS

● **EASTERN ONTARIO DENTAL ASSOCIATION CONVENTION** will be held in Chateau Laurier Hotel, Ottawa, September 21, 22 and 23.

● The **DENTAL ALUMNI ASSOCIATION**, University of Toronto are planning their Annual Dinner and election of officers to coincide with "Home-coming week-end", Oct. 17-19. The sporting event will be the Varsity-Queens football game Oct. 18. The Alumni Dinner will be held Oct. 17, at the Royal York Hotel and will take the form of dinner, entertainment and dance.

● **28TH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** will be held in Montreal **OCTOBER 22-24, 1952.**

● **ANNUAL MEETING OF THE AMERICAN ACADEMY OF PERIODONTOLOGY** at Statler Hotel, St. Louis, Mo., Sept. 4-6, 1952.

● A number of new features, including a merger of all scientific sections for special discussions on the use of antibiotics in dentistry and on oral focal infection, will be presented at the **93rd ANNUAL SESSION OF THE AMERICAN DENTAL ASSOCIATION** to be held September 8-11 at St. Louis.

All 11 scientific sections will be combined for panel sessions on antibiotics and focal infection on Sept. 10.

In addition to the combined panel sessions, every phase of dentistry will be discussed by some 60 essayists at the 11 separate scientific sections.

Colour television clinics for the 1952 meeting will be shown.

The scientific program will include 200 table clinics and 50 scientific exhibits.

● **THE UNIVERSITY OF ALBERTA FACULTY OF DENTISTRY** is holding a **Refresher Course** on September 15-16, 1952, at the University of Alberta. Registration is open to all members of the Dental Profession.

● **THE UNIVERSITY OF MINNESOTA SCHOOL OF DENTISTRY** announces the **SEVENTH ANNUAL SEMINAR** for the study and practice of **ORAL MEDICINE**, September 25-27, 1952, to be presented through the facilities of the Centre for Continuation Study.

● Two hundred dentists, including top dental-medical researchers will be in attendance at the **NINTH ANNUAL SEMINAR FOR THE STUDY AND PRACTICE OF DENTAL MEDICINE** set for the Desert Inn, Palm Springs, California, October 26-30.

● **UNIV. OF TORONTO, FACULTY OF DENTISTRY, CONTINUATION COURSES FOR GRADUATES IN DENTISTRY:**—Anatomy as applied to dentistry, Sept. 15-17. Anatomy of interest to dental practitioners will be reviewed with practical application. Tuition fee \$50.00.—Enrolment limit 6.

DENTAL ORAL SURGERY AND ANAESTHESIA, November 17-21. An effort will be made to deal specifically with the problems which confront the general practitioner in his office. Tuition fee \$75.00.—Enrolment limit 12.

PEDODONTICS, November 24-26. Problems in preventive orthodontics, nutrition, public health, dental caries and operative procedures will be discussed. Tuition fee \$50.00.—Enrolment limit 12.

There will be courses in the New Year in Periodontics, Cephalometric Techniques, Operative Dentistry, Dental Radiology, Dental Caries, Endodontics, Orthodontics, Oral Surgery and Anaesthesia.

Address enquiries to the Dean, Faculty of Dentistry, Univ. of Toronto, 230 College Street, Toronto 2B, Ontario.

● **THE COLLEGE OF DENTISTRY, OHIO STATE UNIV.** will present the following post-graduate courses this fall: Sept. 22-26, Anatomy of Head and Neck; Oct. 13-17, Clinical Oral Pathology and Diagnosis; Oct. 20-24, Periodontics; Oct. 20-24, Full Denture Prosthesis; Oct. 27-30, Partial Denture Prosthesis; Oct. 27-30, Oral Surgery; Nov. 17-21, General Anaesthesia; Oct. 6-10, Nov. 3-7, Nov. 17-21, Airbrasive Technique. The fee is \$50.00 per course with the exception of Oral Surgery and Airbrasive Technique for which the fee is \$100.00. Apply to College of Dentistry, Ohio State Univ., Columbus 10, Ohio.

● **THE 26th CONGRESS OF THE ITALIAN DENTAL ASSOCIATION (A.M.D.I.)**, combined with the 1st Triennial International Dental Prosthetic Meeting will be held in Rome during the second half of October, 1952.



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Editorial

GOLDEN JUBILEE OF THE CANADIAN DENTAL ASSOCIATION

Ushered into being fifty years ago in the city of Montreal, an infant, weak and wabbling, with annual dues placed at fifty cents, the Canadian Dental Association came into being, the awakening of a potential giant. Since then growth has been slow but sure until now our Association has reached maturity in social responsibility and in the care of all those who seek its services. We have the feeling that the C.D.A. is doing its part in keeping Canada great.

Our dental personnel now exceeds five thousand but the growth has not kept pace with the increase in population. We have our splendid Headquarters Building in the city of Toronto and in charge of the same a most capable full-time secretary in the person of Dr. Don W. Gullett. We have energetic committees dealing with Auxiliary Services, Dental Public Health, Education, Ethics, Finance, Health Insurance Studies, Hospital Dental Services, Industrial Dentistry, Legislation, Public Relations, Research, Publications, and a number of others.

To celebrate this Golden Jubilee it was decided to meet in Vancouver in conjunction with the British Columbia Dental Association. The Board of Governors met just previous to the convention, June 11-14. All ten provinces were represented and these men worked most faithfully, morning, afternoon and evening from Wednesday noon till six o'clock Saturday, dealing with the many problems which ever increase in number. However, under the efficient chairmanship of our President, Dr. Harold M. Cline of Vancouver,

all problems were thoroughly discussed and the solution reached in most cases.

One pronouncement of general interest was the statement agreed upon for the present with regard to the fluoridation of communal water supplies. This statement reads as follows:

"A number of controlled studies to determine the effect of artificially fluoridating communal water supplies have been in progress for periods ranging up to seven years. While none of these studies is yet complete preliminary results indicate that a significant reduction in dental caries is being achieved, at least in child populations, when the teeth have been calcified subsequent to the inauguration of these studies. Based on these preliminary observations, a number of organizations including the American Dental Association, the United States Public Health Service, the State and Territorial Dental Health Directors, the American Medical Association, and the National Research Council in Washington have recommended the fluoridation of municipal water supplies where such action is supported by local dental societies.

"As the earliest studies undertaken on artificial fluoridation are still in progress, and reporting at intervals, the Research Committee of the Canadian Dental Association does not feel justified in completely endorsing without some qualification the fluoridation of communal waters. However, in view of the widespread approval given this procedure by other responsible bodies, and because no ill effects have been noted from the procedure, this Committee feels that communities considering fluoridation should be informed that they might reasonably expect a reduction in dental caries to follow such action. At the same time they should recognize that no studies have yet been completed and that additional facts might emerge from studies now in progress. Furthermore, it should be understood that reduction in caries will be limited and that this method should be considered as an adjunct to other preventive measures.

"A study of fluoridation is now being conducted by the Department of National Health and Welfare, Ottawa. Until this and other studies are completed it is recommended that water fluoridation projects should be planned and conducted so that they will provide reliable data which will supplement our present knowledge and serve as progress reports."

Reports presented to the Board of Governors will appear in future issues of the Journal. A perusal of the splendid report of our President appearing in this issue will give a brief survey of our undertakings. The fine report of our Jubilee Convention written by Dr. Leslie Robinson and appearing in the British Columbia News Section of this issue should be read by all.

At this convention the American Dental Association was represented by Dr. Bernard C. Kingsbury of San Francisco, Calif. who brought greetings from his Association. The British Dental Association was represented by the distinguished editor of the British Dental Journal, Mr. Bryan Wood, who conveyed the greetings of his Association.

This was a most successful convention and great credit should be given to Dr. William Miller of Vancouver, the Chairman of the Convention Committee, and the Chairmen of the other committees for the outstanding success of this anniversary meeting, a meeting long to be remembered in the minds of those who were fortunate enough to attend.

The following officers were elected for the ensuing year: President, Dr. G. Ratté, of Quebec City; President-elect, Dr. A. J. Coughlan of Saint John, New Brunswick; Secretary-Treasurer, Dr. Don W. Gullett, of Toronto. The Executive Committee will be composed of Dr. G. Ratté, Quebec City; Dr. H. M. Cline, Vancouver, B.C.; Dr. A. J. Coughlan, Saint John, N.B.; Dr. R. R. McIntyre, Calgary, Alberta, and Dr. S. J. Phillips, Oshawa, Ontario.

The next meeting of the Canadian Dental Association is to be held in Montreal in the fall of 1953.

As we approach the second half of the century in the life of the Canadian Dental Association we do so with confidence and humility. Fields of investigation are opening up whose boundaries are as yet unknown.

The intellectual history of our profession claims our attention. The professional stream of progress has run strong, bearing a thousand problems upon its currents. We do not know the whole story but with the statesmanship brains of the elected officers of our Association we can move forward with confidence into the unknown.

"'Tis thus we shall renew our youth and secure our age against decay."

M.H.G.

BOOK REVIEW

Public Health and Dental Care, a paper covered book of 80 pages by Alfred J. Asgis, D.D.S., Ph.D., F.A.P.H.A., F.A.C.D., Assistant Professor of Oral Surgery and Lecturer on Public Health, also Director of Courses in Public Health, Post-Graduate Division, New York University, College of Dentistry; Consultant Nutritionist, Department of Hospitals, City of New York. 2nd Edition, Revised. Published by Wallenberg & Wallenberg, New York 17, N.Y.

This fine thesis on Dental Public Health presents a brief outline of the scope and functions of dentistry in community health and public health. It also outlines the responsibility of the dentist to join with community leaders in the promotion of general and dental health.

The theme is considered under the following headings: "Preventive Dentistry and Public Health"; "The Field of Community

Health"; "The Field of Public Health"; "Government Functions in Health—the Public Health Service"; "Dentistry's Responsibilities in Public Health"; "Public Health and the Practicing Dentist".

Dr. Asgis stresses the interpretation of facts and their relationship rather than merely recite facts and events, and also that dental public health is part of general dentistry, not an independent specialty. He suggests three approaches as possible means to control dental disease and increase the distribution of dental services. (1) Apply public health techniques. (2) Develop preventive and control methods. (3) Utilize socio-economic plans.

The dentist who tries to keep himself informed on trends in dental public health will peruse this book with interest and profit.

M.H.G.

ROYAL CANADIAN DENTAL CORPS NEWS

The Director General Dental Services, Brigadier E. M. Wansbrough, O.B.E., M.M., E.D., attended the meeting of the Board of Governors of the Canadian Dental Association held in Vancouver, June, 1952.

The tenure of appointment of Brigadier F. M. Lott, C.B.E., E.D., Supplementary Reserve, as Honorary Colonel Commandant of the Royal Canadian Dental Corps has been extended to July 17, 1954.

Lt.-Colonels R. E. Carroll and G. B. Shillington attended the meetings of the Ontario Dental Association in Toronto 14-16 May, 1952.

No. 9 Coy R.C.D.C. (R.F.), Lt.-Colonel Spencer Lea, Officer Commanding, with headquarters at Calgary, was found to be the most efficient Reserve Force Dental Unit in Canada and awarded the Moore Trophy in the second annual competition.

Major T. L. Marsh, who successfully completed a post-graduate course at the Faculty of Dentistry and School of Hygiene, University of Toronto, 1952, and was granted a Diploma in Dental Public Health, has been posted to the D.G.D.S. (A.G. Branch) Ottawa. Major Marsh was born in Brimington, Chesterfield, England, 1908; came to Canada the following year; and attended Public School at Bowmanville, Ont., and the University of Toronto Schools. On graduating from the University of Toronto, 1932, Major

Marsh practised in Toronto until his appointment to the Corps in 1942. He served in Canada and the United Kingdom and for several years has been on the staff of the R.C.D.C. School, Ottawa. During 1949 Major Marsh completed the Advanced Dentistry Course at the Army Medical Dental Research and Graduate School, Washington, D.C. Major Marsh is married with 2 children.

2/Lt. M. P. Quinn, University of Alberta, is the fortunate young man selected to undergo Canadian Officers Training Corps third practical phase training with the 27 Canadian Field Dental Unit in Germany this summer.

Warrant Officer 1, E. Clark, 37, who has been Superintending Clerk at the Dental Directorate for several years has been promoted to the rank of Lieutenant (Administration).

The following 1952 graduates from Canadian Universities have been granted commissions in the R.C.D.C. (A.F.):

University of Alberta—G. K. Minty, L. A. Mosnier and A. G. Taylor. Dalhousie University—T. D. Cobb and E. M. C. Franklin. McGill University—H. G. Bunston, J. B. Scott, I. W. Susser and G. N. Truscott. University of Montreal—J. J. Bisailon, T. C. Gaudet, G. Lahaye and F. Messier. University of Toronto—N. C. Baird, R. J. Bryant, A. J. Daly, R. G. Darling, E. D. McDermott, A. D. Smith, J. J. Walker, R. R. Warrington and R. M. Watson.

NEWS FROM THE PROVINCES

BRITISH COLUMBIA

Canadian Dental Association Annual Convention, Vancouver, B.C., June 15-18, 1952:—The National Convention of the C.D.A., in co-operation with the British Columbia Dental Association, opened in Vancouver on June 15, with a total registration of 659 dentists, members of the C.D.A. and visitors from outside that organization. By way of providing some contrast to normal B.C. weather, a few showers were turned on for the first two days, but the weather man relented by Monday evening to demonstrate how perfect the B.C. coastal climate can be in June.

From the view windows of the Hotel Vancouver, where the meetings were held, visitors could see the snow capped mountains of the Coastal Range blending into summer conditions on the beaches below, the harbour, less than a mile away from where husky spring salmon are taken within sight of the

Hotel, also the beautiful residential areas of the British Properties across the Bay, with the spectacular Capilano Golf course overlooking city and gulf. Small wonder, then, that a few, or perhaps more than a few played hockey, in true schoolboy fashion, at one time or another during the meetings.

In spite of the topographical difficulties, and the distance separating the B.C. coastal area from other parts of Canada, several clinicians from eastern points were featured on the program, together with the great proportion from the coastal section. However, as is usual with conventions in B.C., a large number of clinicians came from the Western States, and many of these were British Columbians who had strayed from their home country to accept positions on the staff of Universities in the Western States.

To appreciate fully the tremendous task undertaken, and faithfully carried

through in presenting and managing such a meeting as this, one must have served in active committee work throughout the planning and development of the meeting. Dr. William Miller, general chairman of the combined convention committee, Drs. George Darts, Ralph Hall, Doug. Sutherland and Chas. Whitworth, and many other sub-chairmen and members of committees deserve more credit than they will receive for their great contribution to the success of the convention. The President of the C.D.A. Dr. Harold Cline, and the President of the B.C. D.A., Dr. John Ingledew, worked throughout with the general committee, and in guiding and assisting the work of many sub-committees.

Dr. G. F. Amyot, Deputy Minister of the Department of Health and Welfare of the Province of B.C., was the opening speaker. He spoke of dentistry's part in the general health programs, and stressed the inadequacy of the dental population to provide normal dental care for the people of Canada. He challenged the C.D.A. to take whatever steps might be necessary to remedy the situation not five or six years from now, but this year, or next year at the latest.

The first day was given over entirely to lectures to the general assembly. Dr. George M. Hollenback, of Sherman Oaks, California, whose name and reputation need no elaboration to the dental profession, spoke on "The Science and Art of 'Dental Casting.'" To listen to Dr. Hollenback speaking is to realize how well he merits his reputation for meticulous attention to detail in every department of the work in which he specializes.

Dr. Philip Jay, of Ann Arbor, Michigan, Professor of Dentistry at the University of Michigan, universally known for his research in dental caries, reviewed the latest available information on fluoridation research. His address left little doubt in the minds of those present as to the effect of fluoridation of communal water supply. In view of the recent rejection of plans to fluoridate the water supply of some western cities, it is believed that Dr. Jay's address, which was widely and favourably reported by the press, may have some effect. Dr. Jay later addressed a public meeting on the same subject.

A native son of Vancouver, Dr. Earl Pound, of the staff of the University of Southern California at Los Angeles, also addressed the general assembly on "Esthetic Dentures and Their Phonetic Values." Dr. Pound introduced a new concept of denture construction, on a scale which would prove of great value

to the specialist, but would prove out of the range of the average practitioner. While such presentations are most interesting and inspiring, they are not designed to bring the greatest value to the general practitioner who attends the meetings with the hope of taking back with him something that may be incorporated into the ordinary routine practice.

The programs for the second and third days revealed an almost bewildering variety of topics, given in the form of lectures, chair clinics and table clinics. Many famous names were to be seen, such as those of Drs. Hollenback, Jay, Kuratli, Pound, West, and many others well known along the Pacific Coast from across the line. However, sandwiched among these, programs by British Columbia's many clinicians operating in private offices or on the staffs of universities, suffered not at all by comparison.

No token of appreciation—no spoken words can illustrate adequately the time and energy expended by a high official of such an organization as the C.D.A. Perhaps only his wife can fully appreciate the contribution of such an individual to his profession. Nevertheless, a pleasing ceremony was a feature of the C.D.A. dinner when Dr. Arthur Rooney of Edmonton took over the speaker's stand and presented the retiring president, Dr. Harold M. Cline, of Vancouver, with a past president's badge and with a beautiful engraved silver tray, in appreciation of his services during the past year.

Other honours were presented at the same dinner. It is particularly pleasing for one of his staff to refer to the presentation to Dr. M. H. Garvin, Editor of the Journal of the Canadian Dental Association, of an Honorary Membership in the C.D.A. and also an Honorary Membership in the British Dental Association following an address to the meeting by Mr. Bryan Wood of London, England, who represented the British Dental Association at this meeting. Dr. Robert L. Pallen, of Vancouver, a former president of the C.D.A., was also awarded an Honorary Membership in the C.D.A.

For spare hours, between functions and in the evenings, a splendid collection of art exhibits by dentists and members of their families was on display in the main ballroom. Dr. J. S. Bricker, of Vancouver, was in charge of this department, and it proved one of the most attractive features of the meeting.

Equipment of the Division of Preventive Dentistry of the Department of Health and Welfare of B.C. occupied a

prominent position. Great interest was displayed in this transportable equipment, and in the programs of the Division in general.

So the great meeting is over. How shall one assess the value of attending these national conventions? In terms of technical education? In the renewal of old acquaintances? In appreciation of the restful break in the routine of a busy practice? It is true that many a small point of improved technique is approved and recorded for future use. Many an old friend is met, and happy hours are spent in recalling former days. But surely, the greatest value received from these crowded days is that sense of inspiration that is brought to us in many ways — the appreciation of the great work in the name of our profession being done by others, and the sense of obligation to take our share of that work in some form—the urge to alter our technique so as to approach still nearer to the high standards displayed by leading clinicians—the understanding and approval of the great programs being advanced to bring dental health to the children of the Canadian people, and the clear obligation to do our share in bringing the story of dental public health in general to the people themselves. If we carry these undertakings with us, to our everyday life, who can deny the great contribution that the national meetings make, each year, in the life of Canadian dentistry.

Leslie G. Robinson

The Major Display at the Jubilee Convention was the Art Exhibit. Mr. J. DeLisle Parker, outstanding artist and critic was amazed at the show of talent and stated: "Dignified in keeping with the Dental Profession! So good! Future showings should be much larger in keeping with high standards." Such praise should encourage our artists.

The selection of the outstanding picture would be unfair as opinions depended upon the viewer. As in all works of Art, people have their likes and dislikes of the media used. There were 23 contributors, displaying 62 pieces as follows:—Oils, 23; Water Colours, 8; Pastels, 4; Etchings, 4; Photographs, 11; Copper Toolings, 5; Wood Carvings, 2; 4 groupings of flowers of natural size made from tin also a large case of outstanding comparative Dental Anatomy specimens.

The following people from various cities across the Dominion contributed to the above:

From Edmonton, Alta.: Mrs. R. A. Rooney, Drs. H. E. Bulyea, R. Black-

well, D. E. Florence, K. A. McMurchy and W. R. B. Wilson.

From Medicine Hat, Alta.: Helen B. Gibson.

From Calgary, Alta.: W. M. Blair.

From Regina, Sask.: Laura Faskin.

From Weyburn, Sask.: L. W. Gemmill.

From Winnipeg, Man.: Myrtle Bier.

From Ottawa, Ont.: E. G. McNiece.

From New Toronto, Ont.: E. B. Sisley.

From Montreal, Que.: Earl Laurin.

From Quebec City, Que.: Vigor Plamondon.

From British Columbia: Mrs. L. Lewis, Drs. B. A. Bishop, L. Russell Bowlsby, J. S. Bricker, Leonard Gee, R. J. Warshawski and A. P. Salter.

All Exhibits were hung by Mr. T. Slater of the Art Gallery and each piece had a favourable showing, with good lighting conditions. The success of the showing is due to the artists themselves. Their subject matter, composition and colour values were exceptionally fine. This branch is being built into a very prominent part of our National Conventions. Great interest was shown. The highest praise was that many returned again and again with new friends to view the showings. Let's make next year at Montreal many times the size. Allow your fellow dentists and their wives the pleasure of enjoying with you, your work.

J. S. Bricker, Chairman
Art Exhibit Committee

The annual meeting of the **British Columbia Dental Association**, held at luncheon time on the last day of the combined Convention of the C.D.A. and the B.C.D.A., resulted in the election of the following slate of officers for the year 1952-1953:

President—Dr. Leslie Marshall, Vancouver; President-elect—Dr. Harold Turner, Victoria; Secretary—Dr. George Creasy, Vancouver; Treasurer—Dr. D. J. Sutherland, Vancouver; Board of Directors—Dr. L. W. Beamish, New Westminster, Dr. Lloyd English, Kamloops, Dr. Jack Penzer, Langley, Dr. Wm. Milburn, Victoria, Dr. N. C. Ferguson, New Westminster.

Planned to conclude early in the afternoon, the meeting unfortunately continued until 4.30 P.M. Many important members of the Association were necessarily absent, either attending to duties connected with the program and arrangements of the Convention, or themselves presenting clinics, and those of the faithful who remained until the end of the meeting regretted their absence from the interesting program of the final afternoon. It was evident that officers and members of the executive committee were agreed that different

arrangements would be made for future similar events.

Nevertheless, much important business was dealt with. Long discussions on Public Relations, Health Insurance and policy on fluoridation of communal water supplies consumed most of the time, and members at large were given full opportunity to express their views, for the guidance of the executive committee in future deliberations.

While their employers were attending the convention at the Hotel Vancouver, the members of the **Canadian Dental Nurses' and Assistants' Association** met with the British Columbia Dental Assistants' Association at the Hotel Georgia, Vancouver.

Sunday, June 15 was the opening day, when delegates' meetings, registration, and afternoon tea filled the program. On Monday, after opening ceremonies, eleven clinics were presented concurrently by members from Manitoba, Ontario and B.C. After luncheon, two lectures were given to the general assembly, and after dinner, a social assembly was held in the York room.

Lectures, luncheons and entertainment occupied the last two days fully, and many compliments were heard regarding the program and general arrangements. In all, nearly one hundred members registered.

Election of officers of the C.D.N.A.A. resulted in the following:

President—Margaret Good, Montreal, (re-elected); Secretary-Treasurer—Joan Green, Montreal; 1st Vice-Pres.—Kay Hoffard, Winnipeg; 2nd Vice-Pres.—Dee Cliffe, Vancouver.

The slate of officers elected for the B.C.D.A.A. for the coming year is:

President—Mary Groszek, Victoria; Vice-Pres.—Lorraine Miles, Victoria; President-elect—Ruth Walrud, North Vancouver; Secretary—Maxine Johnson, Victoria; Treasurer—Edna Leslie, Vancouver.

Among visitors present at the meeting were Marion Edwards, of Willowdale, Ont., Past President of the C.D.N.A.A.; Madge Tingley, Portland, Oregon; Ethel Brown, of Winnipeg; Helen Wilkinson, Hamilton, Ont. (winner of the Out-of-Province Clinic Award); Gerry St. Arnaud, Edmonton, Alta., (President of the W.C.D.A.A.) and D.A.'s from Prince Albert, Sask., Comox, Trail, Alberni and Fraser Valley towns of B.C., as well as from Victoria, New Westminster and Vancouver.

The B.C.D.A.A. Clinic Award, (the Wynne Saunders Trophy for the best Clinic at the 1952 meeting) was won by

Edna Leslie and Doris Wells, of Vancouver.

The Achievement Award, (Mrs. Ferna Cook Cup for the greatest contribution towards the advancement of Dental Assistants' Associations in B.C.) went to Dee Cliffe, of Vancouver.

The Out-of-Province Clinic prize went to Mrs. Helen Wilkinson, of Hamilton, Ont.

Dentists of British Columbia left few offices open during Convention days. Of something over five hundred in all, in this Province, three hundred and seventy-one registered at the Convention. In addition to the five hundred and sixty-three members of the C.D.A. attending, there were ninety-six visitors, from outside the ranks of the C.D.A. Almost three hundred wives of dentists were registered for the ladies' program. Among the dental assistants, there were one hundred and five registered, in all, of whom ninety-five were members of the C.D.N.A.A. The total attendance, then, at the Convention, was well over one thousand, apart from representatives of commercial firms presenting displays of dental equipment and supplies.

B.C. dentists renewed acquaintances with a number of former B.C. dentists, now living in various Western States, during Convention days. Among familiar faces noted were those of Drs. Gerry Stibbs, Ian Hamilton and Lloyd Jacobson, all now of the staff of the School of Dentistry, University of Washington, at Seattle. Another former Vancouverite, Dr. Earl Pound, now of Los Angeles, was one of the outstanding clinicians.

The annual meeting of the **College of Dental Surgeons of the Province of British Columbia** was held on Monday, June 16th, at the Hotel Vancouver. A fairly large attendance was noted. Reports were given by the president, Dr. Emery Jones, and by the Registrar, Dr. R. L. Pallen. Many of those present availed themselves of the opportunity to ask questions regarding the activities of the Council of the College during the past year.

L. G. R.

SASKATCHEWAN

Saskatchewan Dental Association:— During the month of June, the newly-formed Saskatchewan Dental Association sent Dr. Joe Freeman of Winnipeg, Manitoba, on a tour of four centres of Saskatchewan. He gave clinics at Weyburn, Moose Jaw, Prince Albert and Yorkton on his favourite subjects, Exodontia and Surgery. Dr. Freeman had

plenty of films and with practical demonstrations in some of the centres, his clinics were a great success. In spite of unfavourable road conditions, the attendance was good at each centre, as it afforded those dentists practising in the rural points more of an opportunity to see and hear a top-flight clinician.

As a result of the fine response to Dr. Freeman's visits, the Saskatchewan Dental Association is laying plans to bring another clinician to the province some time this fall. L. D. H.

Saskatoon Dental Society:—The final meeting of the 1951-52 season was held at the Riverside Golf Club. A large number of members was present and a very enjoyable afternoon was had by all. Following the dinner election of officers occurred and we have for the next year—

President—Dr. A. Fernet, Vice—President—Dr. E. Lappa, Secretary—Treasurer—Dr. C. Blue.

High commendations were extended to Dr. F. Bernbaum and his executive for the very interesting and successful year just concluded. L. D. H.

ONTARIO

Dr. D. H. Baird of Ottawa is reported in the *Ottawa Evening Citizen* to have retired from practice after some fifty

years of service. Dr. Baird will be missed by his many friends and colleagues who wish him many years to enjoy leisure and an opportunity to indulge in some of the things he has always wanted to do.

Replica Hospital Room at Home and Industry Show, complete with curtains, oxygen tent, bed, tables, a live patient, and a nurse on duty, (nurses from the Oakville Hospital acted as both patient and nurse), proved an outstanding feature of the Home and Industry Show recently held in Oakville.

The most successful drawing card within the booth was a pillow radio, installed and working at the head of the bed. This proved a great attraction for the males and enticed them into the booth; then the ladies in the visiting party were approached with a copy of the Report and a rose.

The exhibit cleared approximately \$250.00 in donations during the three-day show, and was considered a great success. It was estimated that about four thousand people saw the exhibit and were made aware, through personal contact, of the Hospital's need for their support.

Members of Grey, Huron, Bruce Dental Association held their annual field day on June 11 at Owen Sound. There were a number of guests from Toronto

HOSPITAL ROOM AT HOME AND INDUSTRY SHOW



who make it an annual custom of helping their colleagues of this society enjoy the day. Trout fishing was not as good this year but other events made up for it. The motor trip up the peninsula was a delightful drive. The golf at Owen Sound Golf and Country Club was excellent.

Everyone made it a point of being at the clubhouse about seven o'clock for the annual dinner. After plenty of good food and good fellowship, prizes were presented for golf and a business meeting held. The top golfers of the day were Dr. Bob Marshall of Toronto and Dr. Jack Kennedy of Mount Forest with respective low gross scores of 81 and 90. Other prize winners were Dr. Gord Johnston, Dr. Redford, Mr. Jack McTavish, Dr. Harry Legate, Dr. Wilson Bedell, Dr. George McKee, Mr. Sam Leaver, Dr. L. G. Campbell, Mr. A. Parker, Dr. D. D. Campbell, Mr. C. Pierce, Dr. Milton Bye and Dr. R. McKee.

The meeting was conducted by president Bob Sadler with Dr. Bill Tackaberry as secretary in charge of arrangements.

The new officers are: President, Dr. Cliff Sudden; Vice-President, Dr. Don Cheatham; Secretary-Treasurer, Dr. Harry Legate. Directors are: Drs. E. Bruce, Kincardine; G. H. Stewart, Thornbury; E. J. Weller, Mildmay; E. L. Hardman, Warton; J. C. Guthrie, Port Elgin and M. P. Hawton of Collingwood.

Essex County Dental Association:—For many years the University of Toronto has had available a consultation service in Orthodontics. Now through the means of a Federal grant administered by the Province, a field representative has been appointed to work in conjunction with the Public Health units as a consultant in Interceptive Orthodontics. A survey has been inaugurated at Burlington.

Dr. Gordon Sayers is the consultant appointed. He is well qualified for this work, having obtained his Master's degree in this specialty. He was in Windsor on July 10 to explain the functioning of this project. His message was of interest to the general practitioner and specialists alike. A number of his suggestions in treatment can be applied by every dentist.

The above information has been supplied in a letter from Dr. J. D. McLean to all members of the Association along with an invitation to attend the meeting.

Attention Fairway Fans:—The Toronto and District Annual Golf Tournament is coming up on Friday, September 5. Tee off time is 12 p.m. to 2 p.m. at St. George's Golf and Country Club.

Fee, including dinner, is \$6.00 and for golf only, \$3.00.

A welcome is extended to everyone. For particulars phone WA 4774 or KI 3729. Ed Bilkey, secretary.

Eastern Ontario Dental Association Convention Program

Sunday, Sept. 21

10.00 a.m.—Golf; Dr. Lorne Barnabe, Chairman.

8.45 p.m.—Musical

Monday, Sept. 22

8.45 a.m.—Registration

9.00 a.m.—Exhibits

9.30 a.m.—Table Clinics presented by Dentists, Exhibitors and Dental Nurses.

11.30 a.m.—Exhibits

12.30 a.m.—Joint Luncheon with Dentists' Wives Association; Speaker

2.30 p.m.—Dr. Romle Romine, Detroit, Mich.: "The Relationship of Operative Dentistry to Periodontal Disease."

3.45 p.m.—Clinic presented by The Royal Canadian Dental Corps.

7.00 p.m.—Buffet Dinner Dance; Assembly Hall, Lansdowne Park; Dress strictly informal; everyone welcome.

Tuesday, Sept. 23

9.30 a.m.—Dr. Romle Romine

10.30 a.m.—Col. T. Fischer, National Bureau of Standards, Washington, D.C.: "Plastic Filling Materials."

11.30 a.m.—Exhibits

12.30 a.m.—Dine where you wish.

2.15 p.m.—Dr. Charles McLean: "Practice Management"

3.15 p.m.—Dental Public Health: Dr. John Hein, Rochester, N.Y.: "Dental Caries Control Measures"

6.30 p.m.—Dinner, Speaker, Entertainment.

QUEBEC

Plans are well under way for the **28th Annual Fall Clinic of the Montreal Dental Club** to be held October 22-24 in the Mount Royal Hotel. From the office of the Director, Dr. M. L. Donigan, comes word of the program to date, with the final program to be published in the September issue of the Journal.

Dr. Donald A. Kerr:—School of Dentistry, University of Michigan, Professor of Oral Pathology and Periodontia: "Differential Diagnosis of Periodontal Disease."

Commander Paul A. Moore:—Head of Operative Dentistry Division, U.S. Naval

Dental School, Bethesda, Md.; "High-Speed Procedures for Cavity Preparation."

Dr. I. C. Schoonover:—Chief of the Dental Research Laboratory, Bureau of Standards, Washington, D.C.: "Self-Curing Resins in Dentistry."

Dr. Harry Albert:—Attending Chief of Endodontia Dept., Bronx Hospital, New York: "A One Visit Endodontic Procedure."

Dr. James McCutcheon:—Assoc. Professor, Prosthetic Dentistry, McGill University: "Partial Denture Prosthesis."

The Essayists will be:

Dr. Gordon Nikiforuk:—Assoc. Professor of Pedodontics, Faculty of Dentistry, University of Toronto: "Aetiology and Prevention of Dental Caries."

Dr. Harry Albert, New York: "Modern Concepts in Endodontia."

Further information can be obtained from Dr. M. L. Donigan, Drummond Medical Bldg., Drummond St., Montreal, Que. R.F.H.

Youth had its fling at the **Annual Knowlton Golf Week-End of the Montreal Dental Club** on the week-end of June 20-22. Roy Dohn, a new member of the Club unseated Arnold Mitchell for the Club Championship by posting a gross of 81 which is quite a score for such a golf course. Dr. Mitchell presented the Art Walsh Cup to the new winner but, after due congratulations, warned Dr. Dohn that he would be after him at the Fall Meet to be held in September. Needless to say, the almost perennial champion, Dr. Mitchell received the second low gross award.

George Dundass walked away with the Low Net cup but not without some complaints from the runner-up, Bob Harvey, that his handicap was too high!!

The weatherman provided excellent weather for a perfect week-end for the twenty-five members of the club who appeared. Of note was the wonderful turnout of the newer members of the Club, although some of the old standbys were really missed. The majority of those who were absent, however, were excused for the very good reason that they were in Vancouver for the C.D.A. Meeting.

A Raffle was held and Roy Dohn won a shooting stick while Sid MacSween walked away with a wedge. The Golf Committee of John MacDonald (in absentia—in Vancouver), John Chamard and Arnold Mitchell deserved their fine vote of thanks for the management of the meet and for obtaining prizes for everyone! Bob Harvey

A special meeting of the **Mount Royal Dental Society** was held on June 17, in

order to hear an address by Dr. Samuel Cripps. Prior to the address, several guests were introduced to the audience, notably Dr. Prescott Mowry, Dean of the Faculty of Dentistry, McGill University, and Drs. K. Walford and R. Edmison of the Dept. of Periodontia, McGill University.

Dr. Cripps, who has attained eminence in the practice and teaching of periodontia in England, was introduced by Dr. A. S. Solomon, and spoke on "Pressure Packing in Periodontal Pocket Therapy".

Before going into his subject directly Dr. Cripps spoke of a feeling of nostalgia and of feeling lonesome for his native Canada while in England. He recalled some of his early days in dentistry here, and in particular made reference to Dean Mowry whom he called the fountainhead of his inspiration.

Dr. Cripps then proceeded to outline a method of treatment which is applicable to a large number of cases, namely through the use of a pressure pack. Those who served in the Dental Corps will recall this as the C.D.C. Pack, developed and perfected by Linghorne and MacIntosh in Canada and Cripps in England.

Dr. Cripps stated that the pack could be added to the already existing forms of periodontal therapy—

1) The Conservative School, which places great emphasis on scaling and curettage, and demands exacting patience, knowledge and digital dexterity. The followers of this school believe that there will be tissue re-attachment if the root cementum has not been completely destroyed.

2) The Radical School, which believes that the Conservative method wastes a lot of valuable time, and does not result in a tissue re-attachment but merely a re-approximation which will reopen. The followers of this technique believe gingivectomy to be the only effective method of permanent pocket elimination.

Dr. Cripps stated that the data for and against each school is overwhelming, and that we should take the best from each and correlate them as best suits our needs.

Dr. Cripps now introduced the Pack technique into his presentation as an intermediate method between the other two, and as compensation for some of their failings. The use of the pack is ideal for the elimination of pockets too deep to be eliminated by scaling alone, and those too prevalent and not deep enough for gingivectomy. This method also makes the subsequent removal of subgingival calculus easy.

Dr. Cripps' description of the technique is as follows:

The pack is in the form of a powder and liquid. The powder consists of pulverized resin, zinc oxide, tannic acid and asbestos fibres. The liquid is oil of cloves. The pack is prepared by incorporating the maximum amount of powder into the liquid till it becomes a semi-solid mass which will not be sticky to fingers or instruments. This is broken into proper strips and pledgets.

The mouth is prepared for the pack by first removing the gross calculus, and eliminating any acute or chronic infection which may exist. The area to be packed is isolated, swabbed with alcohol and dried with air. The pack is then inserted interproximally, labially and lingually in the following manner. A small piece is picked up on the packing instrument (Ward's Carver No. 1 or 2) and placed into the pocket with pressure to get it to the bottom of the pocket. This will produce a temporary blanching. With an orderly and systematic routine this technique can be carried out painlessly and quickly to achieve a good result. Next add sufficient pack to overfill the interproximal areas and join them up. A roll of pack is then placed over the first layer, attached to it, and rolled over it with pressure. The pack

is left in place for 48 hours, after which it is easily removed. This procedure can be repeated if required.

Dr. Cripps then pointed out that home care is very important. While the pack is in place, brushing is prohibited, but the use of mouth washes should be encouraged. Chewing should be confined to the untreated side. Dr. Cripps pointed out that we must arouse our patients from their apathy when active treatment is over. We must make them realize the value of the toothbrush, the woodstick and the mouthwash. Good home care gives nice lasting results, while poor home care results all too often in a complete relapse of the case.

A number of slides were then shown to illustrate cases and results. During the evening Dr. Cripps stressed again and again that the scaler is very important and that its role must not be underplayed.

Dr. Cripps was thanked on behalf of the society by Dr. G. Franklin.

A.W.B.

Two Deans Honoured:—Dr. Prescott Mowry, Dean of the Faculty of Dentistry, McGill University, and Dr. Ernest Charron, Dean of the Faculty of Dentistry, University of Montreal, have been made honorary members of the Academy of Dental Medicine.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

The Number of Names in the Register of the United Kingdom at the beginning of this year was 15,551, representing a net increase of 224 during the preceding 12 months. In fact, however, 721 names were added in 1951, including those of 573 applicants from the dental schools and 137 with Commonwealth qualifications, both record figures, but the number of names removed, 564, was also considerably larger than in 1949 or 1950 and not far short of double the average for the past 20 years.—Br. D. Journal.

Life Expectancy in England:—The expectation of life of a boy born in England in the middle of the eighteenth century was probably less than 30 years. In 1841, when the figure could be calculated more exactly, it was 40 years. In 1945 the expectation had increased to 63 years, and even in the short interval since then it has continued to advance, reaching 66.5 years in 1950. Girls do rather better, and those born in 1950 could expect to live over 71 years.—Registrar General's Quarterly Return for England and Wales.

NEW ZEALAND

Children's Dentistry:—The editor of the New Zealand Dental Journal has this to say, in part, about Children's Dentistry in last April's issue of his publication:

"As reported in the January issue of the Journal, the Executive Council of the Association on Monday, 17th September, passed a resolution which we hope will prove to be a milestone in the history of dentistry in New Zealand. It was solved:

"That the Executive Council supports the principle that the dental profession should re-establish contact and responsibility for the dental treatment of children, and that the Government should assume financial responsibility for those children choosing treatment from a private practitioner—as is the case in the present State Dental Service as well as the Adolescent Service."

"Through its major representatives, the dental profession of New Zealand has decided that children's dentistry is part of the responsibility of every dental practitioner in this country.

"The great shortage of School Dental

Nurses and the introduction of the Adolescent Service is already bringing many dentists into contact with large numbers of school children for the first time. In order that graduates may be better equipped to meet the new demand than they were in the past, the dental course at the University of Otago in recent years has placed increasing emphasis on children's dentistry. This subject, linked with preventive dentistry, is included in the final professional examination.

"But it is doubtful whether the profession as a whole is fully aware of the

significance of these changes. A widely advertised Postgraduate Course on clinical Preventive Dentistry, which was to be largely devoted to practical procedures in the dental treatment of children, received no applicants. The profession in New Zealand is faced with a challenge, and dentistry throughout the world will be interested to see how we meet it. We can no longer ignore our professional responsibility to children. Having decided to re-establish contact with and responsibility for the children, we must be faithful to our resolution."

GENERAL NEWS

The Role of Fats in Human Health has leaped into sudden prominence, according to Nutritionist Margaret E. Smith, writing in the current issue of *HEALTH* magazine. Overweight individuals are notably unpopular with life insurance companies — and for good reason, she points out.

"Until recently hardening of the arteries was considered the inevitable result of advancing age," writes Miss Smith in the *Health League of Canada* magazine. "It still ranks first as the number one cause of death and disease in the United States; but there is now definite evidence that hardening of the arteries is a nutritional or metabolic error. It is due to blood disorders caused by the presence of too many fatty substances in the bloodstream."

Citing scientific evidence, Miss Smith offers the following suggestions to men and women wishing to cut down on their intake of potentially harmful fats:—

MAKE SURE YOU GET—

- 1) At least one pint of skimmed milk or buttermilk or an equivalent amount (one cubic inch) of plain cheese daily.
- 2) Whole grain cooked cereal and whole grain bread.
- 3) Vegetables, especially green and yellow, raw and cooked.
- 4) Raw and cooked fruits.
- 5) Lean meats.
- 6) Liver once or twice a week.
- 7) A recommended vitamin A preparation.

Foods to avoid in the interests of reducing fat intake include: whole and chocolate milk, cream, ice cream, pies, rich cake, nuts, avocados, fat meats, gravies with high fat content, salad dressings made with oil, and glandular organs (kidneys, sweetbreads) other than liver.

Should doctors go on strike to assist labour organizations when negotiations

re working conditions, etc. fail and interruption of services threatened? The San Francisco Medical Society says emphatically "No," that no conflict between management and labour can be of such magnitude that its attempted solution should in any way justify jeopardizing to the slightest degree the proper medical, nursing, dietary, pharmaceutical and hospital care of sick patients.

The following are the names of the successful candidates in the recent **Examinations held by the Dental Council of Canada:**—

Amundsen, Arthur Wayne; Barrett, Gerald Douglas; Bliss, Frederic Marks; Brabant, George Alfred; Bryant, Ernest Cyril Victor; Bunston, Harold Gordon; Cobb, Thomas Drummond; Coleman, William Bartholomew; Daly, Albert Joseph; Davis, Roy Walcott; Dickson, Ronald Graham; Duncan, John Alexander; Dwyer, William James; Edwards, Alexander Charles; Epstein, Murray Solomon; Epstein, Ray Aubrey Isaac; Findlay, George Nicholson; Franklin, Elliott Maynard C.; French, George Parmiter; Friesen, John; Geldart, Stanley Gordon; Gelmon, Sydney Ralph; Hayward, Clinton Amos; Hicks, Donald Clarence; Hori, Noble; Humphreys, Alfred Charles; Hurton, James Perry; Jensen, Thormo; Kasdorf, John; Knutson, Gordon Harold; Kowalchuk, Peter Walter; Kroshus, Donald Francis; Kyte, John Anthony Michael; Lind, John Donald; Locke, Gerald Lorne; Lukenchuk, Joseph; Mitchell, James Gordon; Monteith, Charles Gordon; Moreside, John Lester; Mosnier, Louis Andre; Muirhead, Kenneth William; MacIntosh, Edwin Livingstone; MacKay, William Donald; McParland, Stanley James; Nadeau, Joseph Roland; Phillips, Orville Howard; Pressey, Walter Wilfred; Read, Frederick Douglas; Reddon, Philip Robert; Rennie, George Smith Taylor; Rowlands, James Arthur; Siren, John



PHOTOGRAPH TAKEN AT THE GOLDEN JUBILEE MEETING
OF THE CANADIAN DENTAL ASSOCIATION, VANCOUVER, JUNE 16, 1952

Left to right:—Dr. R. L. Pallen, Vancouver, Registrar of the College of Dental Surgeons of B.C., who was made an honorary member of the Canadian Dental Association at this meeting; Dr. Bernard C. Kingsbury, San Francisco, California, official representative of the American Dental Association; Dr. Gustave Ratté, newly elected President of the Canadian Dental Association; Mr. Bryan J. Wood, Editor of the British Dental Journal and official representative of the British Dental Association; Dr. Don W. Gullett, Secretary of the Canadian Dental Association; Dr. M. H. Garvin, Editor of the Journal of the Canadian Dental Association, who was presented with an honorary membership in the British Dental Association and also made an honorary member of the Canadian Dental Association.

Victor; Susser, Isidore William; Taylor, Alexander Gordon; Travis, Gordon; Truscott, George Nelson; Watson, Dennis Edward; Westrup, Oliver; Wolverton, Harold Gordon; Woodside, Donald Garth.

An Evaluation of Caries Control Procedures:—Dr. David F. Mitchell, D.D.S., Ph.D., Associate Professor of Dentistry, Univ. of Minnesota, has this to say about Caries Control in the June 1952 issue of the Minneapolis District Dental Journal:

1. Decrease the ingestion of refined carbohydrates, especially between meals.
2. Brush the teeth or rinse the mouth thoroughly immediately after eating.
3. Use the accepted technique for the topical application of sodium fluoride.
4. Support the artificial fluoridation of community water supplies.
5. Furnish regular, good dental care.
6. Consider the use of a penicillin dentifrice for restricted use.

Counsel patients regarding these measures, and practise preventive dentistry. "One can envision, therefore, that the dentist will enjoy a gradual transition from a pre-occupation with meeting an unending demand for dental repair to the more stimulating practice of oral

medicine and all that is implied in the field of preventive services." (H. T. Dean).

Dr. Mitchell also states that at the present state of our knowledge there appears no reason to advocate the use of the following for the control of caries.

1. Topical application of silver nitrate.
2. Topical application of a combination of potassium ferrocyanide, and zinc chloride.
3. The administration of Vitamin D.
4. The administration of calcium.
5. The regular use of orange juice.

At present we are unable to recommend the use of any lozenges, pills, mouth washes, chewing gum, or vaccines as caries control measures.

Fluoridation Statistics:—Of the nine long-range fluoridation studies initiated, not one has failed to show a marked reduction in dental caries as compared to base line data. Following are recent reports of the Grand Rapids and Evanston studies.

Grand Rapids: Per Cent Reduction (from base line year) in Number of DMF Permanent Teeth Per Child:

Age	After 6 Years
5	74.3
6	66.3
9	38.9
13	26.0
16	15.9

The **Evanston Study** showed a reduction of 46 per cent in the DMF rate among the 6, 7 and 8-year-old children after four years.

Although fluoridation at Madison, Wisconsin, is not considered an organized study, it is significant to note that they have experienced a 42 per cent reduction of dental decay after 44 months. Madison uses hydrofluoric acid to supply the fluoride ion.

Waukegan is the most recent city in Illinois to have fluoridation approved by the Illinois Department of Public Health.

F. Rev. of Chicago D. Soc.

1954 Meeting of the Canadian Dental Association:—At the Executive Meeting of the C.D.A. held in Vancouver, June 15, it was decided that the 1954 convention should be held at the Algonquin Hotel in St. Andrews, New Brunswick, provided that suitable accommodation can be secured.

During the Spring Quarter, 1952, three dentists from Canada attended **Post-graduate Courses at the Ohio State University**.

Drs. A. W. Grace, Ottawa, and Lorne E. MacIachlan, Ottawa, attended the course in Partial Denture Prosthesis and Dr. R. Craig Hutchison of Toronto attended the one in General Anaesthesia.

These courses were given for five consecutive days to limited groups.

The editor of Medical Times discusses **Socialized Medicine as a Factor in France's decline** as follows:

"In France the worker, when ill, receives complete medical care free; for a maternity case in the family he gets \$667.00 (sic). As a result the birth rate has gone up; there are now 300,000 more births annually than deaths.

"But this welfare system has been so fantastically costly that the nation's economy is a nightmare.

"One government after another falls; no finance minister can cope with the weird problem; no political party dares to advocate a cut in the benefits.

"What point is there to raising the birth rate if thereby a glorious power is reduced to a third-rate status among the nations of the world?

"This is the France that is expected to constitute the West's chief bastion against aggression."

The Ministry of Supply Atomic Research Establishment, at Harwell, England, has installed a central heating plant that will draw its heat from BEPO, the large experimental atom pile. Installed at a cost of £15,000, the system will initially heat a building containing 80 offices, approximately 330,000 cubic feet. It is planned to expand the system.

Topical Application of Sodium Fluoride:—Dr. Stewart A. MacGregor of Toronto had this to say about the local application of sodium fluoride at the International Dental Congress held in London in July:

"Sodium fluoride topically applied reduces dental caries about 40 per cent. However, from a practical point, its use has a number of disadvantages: (a) It can never become a mass controlled measure because of personnel problems; (b) It may give the parent and the child a false security. They may interpret its use as permitting the increase in consumption of fermentable carbohydrates. Sodium fluoride will not protect the tooth against prolonged and high acid concentration; nor is it effective when the susceptible surfaces have been attacked; (c) In a private practice or as a public health measure, it is not economically sound to apply sodium fluoride topically."

Socializing of Dental Services:—Mr. T. R. Jeffers of Smith-Holden Inc., has this to say on this subject in Dental Industry News: "Whether we like to think of it or not, there is still tremendous pressure being built up for socialized medicine and dentistry. Such thinking is foreign to the thinking of those engaged in private enterprise, but we've got to think wisely and clearly, and act in the same manner if the powerful forces at work are to be stemmed.

"The bare facts of the matter are that the dentist and the dental dealer and manufacturer must team together to make dentistry available and attractive to those who need and desire dentistry.

"There are millions who never enter a dental office because of fear of pain, because of the dread of large bills, because of indifference. The dentist and the trade have at hand a multitude of ways and means of overcoming the mental blocks that are keeping patients from the dental office: anaesthetics, analgesia, airbrasive techniques, bank plans, instalment plans, office training courses, attractive dental offices, efficient equipment, the chance to sell aesthetics, etc.

"But shall we be able to convince the wary and the backward that the present system of dentistry is far better than

that being prepared for them by our social planners?

"If it can be demonstrated that the dental world as a whole as it is now constituted can provide adequately for all who need it, the case for socializing of dental services will have been greatly weakened and individual private enterprise made stronger."

Herpes Simplex:—Dr. Lester Hugh Roth reports on the treatment of Herpes Simplex by aureomycin in the May issue of the Journal of the Ohio State Dental Association as follows:

"In three cases of herpes simplex the conditions were chronic and of long standing. One case had persistent recurrent herpes for approximately ten months; the second for a period of four years; the third for approximately six years. These patients had been treated numerous times by dermatologists and general practitioners. The affected areas were extremely raw and painful with yellow crusts and severe fissures and cracking at the corners of the mouth. All previous medical treatment was of little or no avail. In each of the cases this condition was associated with extensive periodontal involvement. Each case received various forms of aureomycin treatment: capsules, 250 mg., one every five hours for four days; then local application of aureomycin ointment to the crusted areas; and the use of cones, solutions and paste on the affected parts. A dramatic healing of the conditions resulted within two weeks. These patients are presently attended in private practice and there has been no recurrence in two of the cases for eight months. The other case began primary healing within four days and secondary healing had begun by the tenth day. This latter case is presently undergoing periodontal treatment and no conclusion can be given."

The Danger of Amidopyrine:—Agranulocytosis is one of the most serious manifestations of drug idiosyncrasy. Dunlop and Rolland encountered this complication in 2 per cent of a series of 200 cases of thyrotoxicosis treated with thiouracil or methyl thiouracil. The long list of drugs which may induce acute granulocytopenia now includes troxidone, chloramphenicol, and "diparcol." The use of any of these drugs is a calculated risk, justified only if the drug has a clear therapeutic advantage over more innocuous substitutes. Amidopyrine became notorious as a cause of agranulocytosis as long ago as 1922, yet cases of agranulocytosis associated with the administration of this drug continue to be reported.

—Br. Med. Jour., June 14, 1952.

Canadians Don't Eat Their Quota of Fresh Fruits and Vegetables:—It has been estimated that on the average Canadians eat only about 376 lbs. of fruits and vegetables per person per year, and nutrition authorities say this should be more like 500 lbs. a year.

In the May-June issue of HEALTH, published by the Health League of Canada, Miss Margaret E. Smith, Ph.B., M.Sc., urges the economy as well as the nutritional value of fresh fruits and vegetables in summer salads. She offers the following pointers:

- 1) Red cabbage contains more vitamin C than green cabbage; and the green outer leaves have more than the inner leaves.
- 2) There are more vitamins in raw vegetables than in cooked.
- 3) When cooking potatoes or other vegetables, help to conserve their nutritional value by putting them into boiling water.
- 4) Wilted leafy vegetables lose vitamin C rapidly.
- 5) The uncultivated greens are rich in vitamins.
- 6) Ready-to-serve cole slaw in packages contains about half the vitamin C contained in cole slaw prepared at home just before serving.
- 7) Commercially canned fruits and vegetables often contain more water soluble vitamins than those cooked at home.
- 8) Vegetables that have been properly frozen are superior to canned ones both in flavour and food value.
- 9) Frozen strawberries retain vitamin C fairly well. Much of this is lost in canned strawberries and still more is lost when they are made into jam.

Dental Services in Japan:—Pursuant to an invitation extended by the Supreme Commander for the Allied Powers, a committee of five members of the American Dental Association visited Japan last July to study all aspects of dentistry in that country and to report their findings and recommendations for improvement of dental services for the Japanese people to the War Department. The final report of the Mission was submitted to the commanding officer. The Committee reported that it seems economically unsound for each dental school to maintain the predental curriculum on a satisfactory university level. Every college of dentistry should be made an integral part of a recognized university as soon as possible. The dental school or dental college in the university organization should have the same academic status as that of other colleges in the university. Dental education should be autonomous and therefore should not be under the

supervision of any other profession. The director of the dental clinic in a medical school should be a dentist and not a physician.

Laboratory and clinical requirements in the technical phase of dentistry appear to be sufficient. Very little, if any, attention has been given to the teaching of pedodontics. This should be corrected at the earliest possible date. It is recommended that a department of oral diagnosis be established as a part of the curricula in each school.

The establishment and operation of 721 health centres and 5,000 hospital units where an enormous amount of outpatient service is rendered show a desire to provide dental health care to the population.

The Japanese dentists complained repeatedly that their remuneration received under the present health insurance system is inadequate. They pointed out that the monthly fees they could earn under such a system were approximately 50 per cent of the monthly fees a physician could earn under the same system.

"The Fluoridation of Public Water Supplies for the control of dental decay is destined to go down in history as one of the great public health measures of

all time," is reported in the Journal of the American Dental Association.

In a symposium on the subject, Dr. Francis A. Bull, of Madison, Wis., dental health director of the Wisconsin State Board of Health, said the measure compares favourably with "such great public health programs as pasteurization, chlorination and immunization." In Wisconsin alone, nearly 100 cities and towns have put the program into operation.

Dr. Bull added that the fluoridation process has two advantages over other public health programs:

1. No other program at the time of introduction had as much scientific data based on human experience. Demonstrations have been carried on successfully for five to six years at Grand Rapids, Mich.; Newburgh, N.Y.; Sheboygan, Wis.; Brantford, Ontario, Canada, and Marshall, Tex.

2. On the basis of extensive scientific study, authoritative opinion has been unanimous on the advantages of the measure and "no valid disadvantage or objection has been proved even after six years of fluoridation."

Fluoridation is not the complete answer to the dental disease problem but it offers for the first time a means for mass control of tooth decay, mankind's most common disease, Dr. Bull said.

IN MEMORIAM

Harry Nelson Hartman of Meaford, Ontario, aged 76, died on June 27. Dr. Hartman was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1901. On graduation he began his practice in Meaford and continued there until his death. He was granted honorary membership in the Royal College of Dental Surgeons in 1951.

Dr. Hartman was a member of the United Church and of the Masonic Order.

He is survived by his widow, two daughters and one son.

Arthur Lemieux of Montreal, aged 89, died June 29. He retired only four years ago.

Dr. Lemieux is survived by his widow, a son, Dr. Henri Lemieux of Montreal, four brothers, three sisters, a granddaughter and three great grandchildren.

DIRECTORY

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Subscription Price of Journal in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

All additions and changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

AOÛT, 1952

No 8

La psychologie dans la pratique dentaire*

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Le docteur Hill écrivait récemment que la vie professionnelle du dentiste pouvait se représenter par un triangle dont les côtés indiquaient le praticien, l'assistante et le cabinet³². A notre avis, il serait plus exact d'imaginer non pas une figure de géométrie plane, mais un volume, une pyramide trièdre dont le sommet supporterait le facteur essentiel, vital: le patient. Et pour compléter le tableau, le tout serait circonscrit par une science: la psychologie.

On entend souvent dire "Un Tel a réussi dans la vie parce qu'il est psychologue." Que faut-il entendre par ces mots?

D'après Jividens³¹, la psychologie est la science dont le sujet est l'étude des réactions de l'esprit humain; la personnalité se trouve être la somme totale des qualités et des caractéristiques de chacun.

D'après Gilmore²⁸, la psychologie étudie les différents aspects qui constituent la personnalité humaine.

Le dentiste psychologue désire comprendre d'abord sa propre personnalité et ses effets se répercutant sur les autres personnes; ensuite comprendre la personnalité des autres et connaître l'influence directe ou indirecte sur leurs attitudes. Il agit en homme avisé car une enquête menée sous l'égide du département de psychologie de l'Institut Carnegie a révélé que le succès dans la profession dentaire dépendait pour 15% des connaissances techniques et 85% des qualités psychologiques du praticien¹⁵.

Dans cet exposé, nous nous efforcerons d'envisager les problèmes psychologiques se rapportant au patient, que nous étudierons sous l'angle de l'âge, du sexe et du type de personnalité; nous parlerons de la peur, de l'angoisse, de la douleur; trois problèmes auxquels il peut faire face, au dentiste, à l'assistante, à l'am-biance désirable dans le cabinet dentaire.

En terminant, nous jetterons un coup d'oeil sur les relations qui existent entre les dents, la bouche en général et les émotions.

1—Le patient

Arbitrairement, nous diviserons la vie de nos patients en trois stages: l'enfance, l'âge adulte, la vieillesse. Pour simplifier, nous parlerons de l'âge adulte quand nous étudierons les divers types de personnalités.

a—Les enfants

Lamons⁴⁰ divise les enfants en six groupes: les peureux et craintifs, les nerveux et tendus, les timides et réticents, les fanfarons, les retardés mentalement, les malades. Morgan⁴⁸ les classe en normaux, anormaux, timides, crâneurs et craintifs. Wilson⁷² les trouve normaux et courageux, gênés et timides, hystériques, rebelles. Tower⁶⁹ donne les facteurs qui régissent le développement de la personnalité chez l'enfant:

a) il doit faire face aux stimuli physiques de toutes sortes venant de l'extérieur;

b) il doit faire face aux stimuli physiques et émotionnels venant de l'intérieur;

*Thèse qui a mérité le premier prix du Mémorial de Guerre de l'Association Dentaire Canadienne, en mai 1952.

c) il doit se conformer aux idées et exigences des individus, de la famille, de la société.

Mettant de côté le pédodontiste, dont la spécialité fait de l'enfant sa raison d'être, le praticien de pratique générale doit réserver un soin particulier aux jeunes, sachant qu'ils sont le noyau de sa clientèle future et qu'ils attirent chez le dentiste qui les soigne, leur famille et leurs amis. Ils y viennent par attraction directe, impressionnés favorablement lors d'une visite au cabinet dentaire à l'occasion d'un traitement donné à un de leurs amis qu'ils ont accompagné par attraction indirecte, recommandés par un patient satisfait⁷.

Certaines notions sont indispensables pour régler notre comportement vis-à-vis d'eux: il faut d'abord mettre à l'aise l'enfant en notre présence⁴⁰; être familier, l'appeler par son prénom; gagner sa confiance en s'intéressant à sa vie, à ses études, à ses jeux⁷¹. Agir avec lui en toute franchise, en toute sincérité, ne jamais le tromper. Lui expliquer que les soins et l'obturation de ses dents temporaires préservent ses dents, les maintiennent en fonction, préviennent les abcès et la douleur⁴⁰.

Il est essentiel d'éviter la douleur²⁰ et la première visite sera, en règle absolue, dépourvue de toute manœuvre qui puisse lui provoquer le plus léger désagrément. Les rendez-vous auront intérêt à être fixés le matin, ce qui nous fera avoir un jeune patient moins fatigué et plus manœuvrable⁷⁻¹⁷. On évitera de prolonger son séjour dans le salon d'attente; quelques minutes serviront à créer une certaine période d'adaptation avant de l'amener dans le cabinet d'opération. Certains dentistes pour récompenser le comportement satisfaisant des jeunes patients leur donnent un petit cadeau: livre, poupée en coton, animal en plâtre, brosse à dents¹⁷.

Il faut se souvenir que 97% des enfants de 6 à 14 ans ont besoin de nos soins⁴⁰, et que pour bien les soigner il faut les aimer.

B—Les vieux

La perte des dents permanentes est considérée par beaucoup comme le pas-

sage de la jeunesse à la vieillesse. C'est une période qui a une profonde influence sur le psychisme et, qu'elle soit acquise ou congénitale, cette perte peut créer chez l'individu un complexe d'infériorité.

Les sujets qui viennent se faire appareiller, recherchent le confort et surtout l'esthétique. Une enquête révèle que leurs désirs sont de 92% l'apparence, 8% pour la fonction. Ils seront donc intéressés non par la technique, mais par les avantages qu'ils espèrent en retirer. Il faut parler service et non pas matériel, employer soigneusement des mots faciles à saisir par nos patients en évitant les termes professionnels, et prouver non par des paroles mais par des preuves que seront les duplicatas, les photos en couleur, avant et après l'appareillage.

Dans leur choix, pour guider nos patients, nous servons-nous de leurs propres émotions⁸, ayant présent à l'esprit que le sourire fait le visage et que les dents font le sourire? Ne vendons pas, mais servons—soyons un conseiller, un ami, un réalisateur, un artiste²⁰⁻³⁰.

C—Les femmes

Une attention particulière sera portée aux variations du moral de certaines femmes qui peuvent être influencées par un état de grossesse ou par un état passager de cycle mensuel, accentuant leur susceptibilité psychique.

D—Les différents types de personnalités

Quatre-cents ans avant J.C., Hippocrate se basant sur les humeurs et fluides du corps, divisait les hommes en colériques, sanguins, mélancoliques et phlegmatiques. Récemment, Kresmer trouvait les différences dans l'aspect physique et les répartissait en: asthéniques, adipeux, athlétiques et hypoplastiques. Le docteur W. H. Schwelton donnait trois groupes: endomorphe—de type digestif, mésomorphe—de type osseux et musculaire, ectomorphe—de type nerveux. Cette classification basée sur les activités a servi de base aux différents types de dents en usage actuellement en prothèse, les premiers ayant des dents de forme ovoïde, les seconds ayant des dents de forme carrée ou rectangulaire, les troisièmes ayant des dents de forme triangulaire⁴⁰.

Dépassant le stage physiologique, d'autres auteurs cherchent leurs classifications dans le côté psychologique.

Freud,¹⁰⁻²⁵⁻⁵⁰ axant le problème sur la sexualité, trouve les types suivants: optimistes, impatientes, ordonnés, percimonieux, obstinés. Il explique sa classification en rapport aux désordres qui proviennent du conflit entre les impulsions instantanées et leurs forces de répression. Jung⁵⁰ se basant sur une théorie philosophique la divise en deux: les extroverts ou grégaires, les introverts ou solitaires. Ruth Moulton⁵² indique qu'il existe: ceux qui appréhendent, ceux qui se plaignent continuellement, ceux qui exagèrent leurs douleurs, ceux qui sont obsédés et excités, ceux qui sont persécutés, ceux qui sont négatifs ou passifs, enfin ceux qui sont indifférents. Rosenthal⁵⁰ trouve des appréhensifs, des craintifs, des hystériques⁵⁸, des hypochondriaques, des obsédés, des paranoïaques, des contrariants, des déprimés et les psychiques purs.

Récemment, Burgess¹⁵ donnait une classification qui nous semble rationnelle et qui mérite d'être rapportée avec ses applications pratiques. Il trouve sept groupes:

a) Personne d'une intelligence supérieure: demande à être traitée avec exactitude et correction; s'intéresse aux nouveautés techniques et aux recherches scientifiques; faire bien attention à son cas particulier.

b) Personne malade mentalement: réclame de la patience et de la compréhension; n'est pas un patient commode; contre-indication pour l'hypnotisme; rechercher le trouble thyroïdien et diriger chez leur médecin.

c) Personne anxieuse: forme le groupe le plus important; donner des pré-médications.

d) Patient convalescent, alcoolique: essayer de connaître le passé pathologique; difficile à soigner, peu collaborateur; réagit mal aux anesthésiques.

e) Personne âgée: (vu plus haut).

f) Enfant: (vu plus haut).

g) Patient normal: celui-ci réclame les qualités de la personnalité que nous trouverons dans le paragraphe traitant du praticien.

Sargent⁵⁷ donne cinq groupes:

a) Ceux qui recherchent la sympathie: patients faciles.

b) Ceux qui sont volontaires: savent ce qu'ils veulent et comment ils le veulent; pas faciles à traiter comme nous l'entendons.

c) Ceux qui se plaignent: les intéresser à quelque idée pour les distraire.

d) Ceux qui grognent continuellement: exercer sur eux notre patience.

e) Ceux qui sont nerveux: essayer l'autosuggestion après être devenu disciple de Coué.

Tarachow⁶⁵ dénombre les patients qui mériteraient, avant de venir nous voir, de passer chez le psychiâtre:

a) les narcissistes: portant un amour exagéré à leur personne; se montrer aussi narcissite pour son travail que le patient l'est pour sa beauté.

b) les compulsifs: méthodiques à l'excès; devraient être faciles à satisfaire par le dentiste consciencieux.

c) les hystériques: toujours en proie à des émotions sexuelles; être amical et aimable sans cependant les encourager.

d) les masochistes: tournés contre eux-mêmes; patients très coopératifs.

e) les détraqués mentalement: ont perdu contact avec la réalité; ne sont pas nombreux mais variés; aider le patient comme celui-ci l'entend.

Après cette énumération des différents caractères, il est nécessaire de dire que les patients normaux sont cependant la grosse majorité. Parmi eux il faut noter, pour terminer, ceux qui se disent "pauvres"⁶⁸. C'est une notion tout-à-fait relative, car à un certain degré on peut être pauvre pour ne pouvoir se payer un sandwich ou un café, trop pauvre pour s'acheter une maison d'été, trop pauvre pour s'acheter une Rolls Royce. Cette assertion ne doit pas trop influencer l'orientation de nos traitements, si l'on se souvient qu'en général on estime la valeur de ce que l'on achète par le prix que l'on paie.

E—Peur, angoisse, douleur

Nous en arrivons maintenant aux notions de peur, angoisse et douleur. Ce sont trois états qui sont plus ou moins liés ensemble.

La peur est une attention concentrée sur l'objet⁵⁵. La peur peut provenir d'idées préconçues⁵; c'est le cas pour ceux qui craignent les injections; elle peut aussi provenir d'un souvenir d'un acte douloureux⁶. Chez nos patients, l'origine n'est pas naturelle mais elle est acquise⁴⁸.

Chez certains, la peur peut être occasionnée par la vue des davier, seringues et autres instruments de chirurgie. Elle peut être aussi provoquée par l'attitude glaciale que conservent encore certains dentistes. Elle peut être créée en faveur d'odeurs qui font naître dans nos bureaux une réminiscence des salles d'hôpital. Elle peut être provoquée par des bruits et vibrations de nos appareils⁴⁵.

Dans la vie, deux grandes forces mènent les hommes: le désir de vivre, le désir d'éviter la douleur, qui donne naissance à la peur. Un homme n'est jamais un héros dans le cabinet de son dentiste¹⁸.

En dentisterie, la douleur est toujours une réaction émotionnelle de la personnalité envers les stimuli^{1,13}. C'est un état psychique d'alarme d'origine neuro-sympathique. Elle provoque, d'après Mercier¹⁵, "des actes réflexes, des actes instinctifs, des actes habituels et automatiques, des actes volontaires."

On peut diviser la peur, en général, en cinq classes:

- a) Peur de la mort,
- b) Peur de l'inconnu,
- c) Peur d'être trompé et pris au piège,
- d) Peur de la foule,
- e) Peur d'origine religieuse.

Ces peurs peuvent gagner trois territoires, siéger à trois niveaux:

- a) territoire sensoriel, généralisé, donne la neurasthénie,
- b) territoire émotionnel, donne l'anxiété, va jusqu'à l'hystérie,
- c) territoire intellectuel, psychique, phobies, dépressions.

La peur peut se rencontrer aussi bien chez les hommes, les femmes et les enfants. Elle est souvent vaincue par la confiance qui émane de la personnalité du praticien.

L'angoisse. Freud²⁵ en fait un état affectif qu'il divise en deux:

- a) l'angoisse réelle qui est une réac-

tion à un danger extérieur et qui provient de l'instinct de conservation; elle est liée à l'intelligence;

b) l'angoisse névrotique qui n'est jamais rationnelle, qui provient de l'exaltation, d'une tension sensorielle et motrice.

Luciani⁴⁸ fait une discrimination entre les termes angoisse et anxiété, bien souvent employés l'un pour l'autre:

L'anxiété est un sentiment; l'angoisse, une sensation.

Il décrit deux formes bien distinctes d'angoisse dentaire:

a) la forme lipothymique: elle est sous la dépendance d'un trouble vagotonique provoqué généralement par une excitation d'origine réflexe et provenant de la cinquième paire des nerfs crâniens à son passage au niveau du système dentaire.

Au cours d'un traitement, le patient sans nulle anxiété apparente, pâlit subitement, le pouls devient petit et lent, une sueur froide perle à son front et si l'on ne vient pas à son secours, il perd plus ou moins connaissance. Parfois des nausées, des vomissements, accompagnent l'accès d'angoisse dentaire. Il est rare cependant que la tableau clinique se rencontre au complet. C'est souvent une simple pâleur des lèvres, une sueur profuse des mains et de la face, un certain degré d'obnubilation mentale qui caractérise cette forme. On peut l'observer même en dehors de tout traitement, elle est causée par la vue ou le goût du sang, par l'odeur même de certains médicaments. Fait important, elle survient fréquemment à la suite de la simple piqûre avant l'injection anesthésiante. Un autre fait plutôt curieux c'est que cette forme affecte exclusivement l'homme.⁴³

b) la forme phobique: elle est rarement observée chez l'homme et semble toujours l'apanage de la femme et des enfants. Ceux-ci sont absolument incapables de venir nous consulter et souffriraient des jours et des nuits sans faire le moindre pas vers nous. C'est cette angoisse qui fait répéter à ces patients à chacun de nos mouvements: "Vous ne me ferez pas de mal, n'est-ce-pas, Docteur" . . . Les mains sont glacées et le

cœur leur bat à se rompre. Tous nos gestes sont épiés et il nous semble avoir devant nous une bête traquée!!

Le surmenage, la convalescence des maladies infectieuses, les troubles endocrino-sympathiques, les menstruations chez la femme, la favorisent.

Le traitement de la forme lipothymique se fera par les médicaments freinateurs du vague, Belladone, par exemple. Pendant l'accès, faire respirer de l'amoniac ou du nitrite d'amyle. La forme phobique sera combattue par les bromures et les accès par la respiration du chlorure d'éthyle sur une compresse⁴⁸.

La douleur, d'après Behan, est expressément une impression mentale et ne peut pas être exactement définie. C'est un processus anormal et généralement nuisible qui atteint l'organisme. Il ne peut être classé exactement comme une sensation, mais peut être considéré comme le résultat d'une perception et l'interprétation d'une sensation par l'esprit. La douleur est le type le plus prononcé de réaction sensorielle. C'est un sentiment exagéré de quelque chose de désagréable qui produit une réaction physique et mentale dans l'organisme. Le mécanisme de la douleur passe par trois stades²:

a) un sentiment, par exemple, de coupure, brûlure, qui constitue la qualité de la douleur;

b) une sensation déplaisante toujours la même, quelle qu'en soit l'origine;

c) une émotion provoquée par un violent déplaisir.

Il peut se rencontrer des aspects psychiques de la douleur, dont la cause a une origine psychogénétique, chez les hystériques, les neurasthéniques, les obsédés et les hypochondriaques. Bernstein⁹ fait une distinction entre la perception de la douleur et l'appréhension de la douleur qui se manifeste par la panique et l'agitation. Cette perception dépend de la susceptibilité individuelle et varie d'un cas à l'autre. Pour les combattre, il faut distraire le patient et, pour cela, bien le connaître et être en meilleure relation avec lui. Il faut aussi éviter de mettre à la portée de ses yeux les instruments dont nous nous servons

et qu'il considère dans son subconscient comme des armes; ne pas le prévenir que l'on peut lui faire mal par le mot "douleur" mais par le mot "ennui". Utiliser le plus possible les instruments à main, ciseaux, curettes, faire le possible pour éviter les ennuis dus à la machine. On réduit par là, plus l'appréhension que la douleur⁵.

En pratique, deux sortes de facteurs sont à employer pour contrôler la douleur:

a) les facteurs psychiques: créer un milieu favorable et sympathique; éliminer par le raisonnement les préjugés. On emploiera la distraction sous toutes ses formes et notamment la musique. Des statistiques ont été faites à propos de cette dernière et ont donné les résultats suivants: pour obtenir le relâchement 80% résultats positifs, 19% indifférents, 1% négatifs. Pour combattre l'appréhension: 70% positifs, 25% indifférents, 5% négatifs. Pour tolérer le travail de la fraise: 58% positifs, 40% indifférents, 2% négatifs.

On utilisera aussi l'autosuggestion dont une des formes les plus employées est l'hypnotisme, quoiqu'en pense Bostock¹⁰, pour qui ce moyen n'est pas à conseiller.

Moss⁵¹, au contraire, est vraiment favorable mais n'en fait pas une fin en soi, mais un adjuvant, une aide valable dans le cabinet dentaire quand il est intelligemment appliqué à des cas choisis. Il ne remplace pas les autres méthodes thérapeutiques, mais aide chez les nerveux, les excitables, et spécialement les enfants au-dessus de 6 ans. Il sert aussi dans les contre-indications pour l'anesthésie chez les cardiaques et les allergiques. Employé sans ou avec de la novocaïne, il se substitue aux pré-médications dans l'anesthésie générale.

L'hypnotisme a eu souvent des effets étonnants. Il se définit comme l'état d'un individu dont la conscience est partiellement ou complètement suspendue et résulte d'un état d'auto-suggestion.

Les phases de l'hypnotisme vont de la légère analgésie à l'état somnambulique qui comprend l'anesthésie complète. Cette méthode demande cinq

minutes pour agir dans les cas normaux. 85% de nos patients intelligents sont susceptibles de la recevoir. Il n'y a aucun danger et tout dentiste peut éventuellement en maîtriser la technique⁵⁰.

b) les facteurs thérapeutiques: utiliser la pré-médication, l'anesthésie locale ou régionale, l'anesthésie générale. Donner plutôt une anesthésie conductive ou régionale plutôt qu'une anesthésie par infiltration. Le succès de celle-ci est très important. Appliquer un topique afin d'éviter la douleur de la pénétration de l'aiguille. Si le patient est trop nerveux, donner une anesthésie générale⁵¹.

Avoir toujours à l'esprit les paroles de Schopenhauer² "la cessation de la douleur est un des rares plaisirs de la vie". Et si Goethe⁵⁰ pense que la douleur fait la conscience de l'homme, pensons qu'il y a que trop d'occasions, hélas, de la connaître pour ne pas lui en imposer d'inutile.

II—Le dentiste

"L'homme restera de tout temps une étude psychologique" a dit Hill⁵². C'est pourquoi, après le patient nous parlerons du dentiste.

Entre ces deux protagonistes, le premier contact est très important, c'est la plate-forme sur laquelle seront bâties nos futures relations⁵⁷ et pour qu'il soit couronné de succès, on doit suivre les étapes successives suivantes:

a) faire en sorte que la personne à qui vous parlez s'aperçoive de l'intérêt véritable que vous lui portez; ceci en lui donnant l'impression que votre temps lui est entièrement consacré aussi longtemps qu'elle le désire;

b) établir un lien d'intérêt commun ou un lien de travail entre vous et lui;

c) trouver quelque chose dans son apparence, dans ses manières, dans son expérience que vous puissiez admirer;

d) essayer de mettre votre patient en état de sentir votre désir de l'aider;

e) lui faire réaliser que vous croyez en lui et avant tout lui laisser croire en lui-même.

Lors de ce contact, il faudra écouter très attentivement les plaintes et les explications qui nous seront fournies^{54,55}. Pendant la conversation, étudier son com-

portement, s'intéresser à son travail, à son passe-temps favori. Essayer de faire de lui un ami afin de mieux collaborer ensemble⁵⁶. Seyler⁶⁰ dit que pour obtenir un excellent résultat auprès de nos patients, il faut de l'amitié, de la compréhension, de la sensibilité, de l'humour, de l'enthousiasme, un sens de la responsabilité, de la sincérité, de la santé physique.

Il faut tenter de satisfaire aux exigences non formulées des patients, celles qu'un esprit attentif pressent puisqu'elles découlent obligatoirement d'un tempérament donné qu'on a préalablement découvert¹⁴. Cultivez votre mémoire pour vous rappeler le cas de chacun. Notez les indications recueillies sur une fiche pour vous aider. Il semblera que vous portez à sa personne un intérêt tout particulier⁵³.

Le dentiste doit rechercher une qualité de sa personnalité qui est essentielle, c'est-à-dire la parole⁵⁹. Il faut:

a) être éloquent,

b) être direct. Pour parler aux gens, employer toujours la 3^e personne,

c) être personnel: avoir confiance en soi sans être imbu de sa personne et être présomptueux,

d) se servir d'exemples concrets qu'il lustrent les faits,

e) varier les sujets,

f) user d'éléments qui frappent l'esprit.

En résumé, voyez vous-même, connaissez-vous vous-même et soyez vous-même⁵⁹.

Ici comme dans d'autres professions, c'est la qualité de l'homme qui donne la classe à son activité, c'est le choix de ses arguments qui élève ou abaisse ses propositions au rang de la consultation ou du marchandage¹⁴. Deux moyens sont excellents pour influencer nos patients; nos paroles, nos travaux. Faire bien attention que nos actions ne trahissent pas nos propos. Dans l'éducation du patient la vision joue un grand rôle. Faites-lui voir des modèles des photographies, des duplicatas; il a été dit que l'image avec quelques mots d'explications permettait de faire comprendre une idée

en une minute, ce qui en demanderait deux sans images³⁸.

Appréciez à leur juste valeur les paroles de Conrad, romancier anglais, quand il dit: "Je suis un vendeur de mots et les mots sont la 'drogue' la plus puissante employée par l'humanité. Donnez-moi le mot juste et l'accent exact et je pourrai remuer le monde"³⁹.

Pour que notre patient nous apprécie pleinement, il faut:

1) dire la vérité—se souvenir du conseil donné par Polonius "Par-dessus tout, sois franc envers toi-même, et comme la nuit suit le jour, il adviendra alors que tu ne pourras pas ne pas être franc avec les autres",

2) faire désirer quelque chose avant de solliciter le besoin de cette chose,

3) faire penser en faisant appel à l'intelligence; l'appel au sentiment nous fera ressentir, or le cœur a ses raisons que la raison ne connaît pas,

4) créer un appel, une force d'attraction d'origine émotionnelle qui fera désirer ce dont on a besoin,

5) créer l'évidence. L'esprit humain refuse d'accepter ce qu'il ne comprend pas,

6) donner au patient le choix, lui soumettre plusieurs plans de traitement⁴⁰,

7) modifier notre conduite et notre façon de procéder suivant l'état d'esprit du patient. Si cet état d'esprit n'est pas le nôtre, nous mettrons au diapason⁴¹.

Les trois principales facultés de l'homme civilisé sont l'intelligence, la volonté, la sensibilité. Ces facultés doivent être équilibrées. Les dentistes qui ne possèdent qu'une de ces trois qualités exclusivement ne sont pas heureux³⁸. Pour que le dentiste ait une personnalité plaisante dans la vie, il faut qu'il soit heureux même dans sa vie privée^{38, 34}.

Les attributs d'une personnalité plaisante sont:

1) la santé — mentale, physique, morale,

2) l'honnêteté—n'avoir qu'une parole,

3) l'habileté—connaissance amenant la confiance, nécessité des cours de perfectionnement,

4) l'initiative—dans vos efforts de la vie journalière,

5) le tact—les patients sont particulièrement sensibles à la critique,

6) l'enthousiasme — ceux qui ont réussi aiment leur métier,

7) l'énergie—le contact d'une personne toujours indifférente n'est jamais recherché,

8) la tolérance — beaucoup d'ennuis découlent du fait que l'on dit tout ce que l'on pense sans s'occuper de ce que pense l'autre personne,

9) la jovialité—il est toujours facile de s'entendre avec une personne joyeuse,

10) la modestie—donner de l'importance à autre personne,

11) l'altruisme — être intéressé aux progrès de l'autre personne,

12) la confiance en soi — faire comprendre aux autres que l'on peut voir à soi-même,

13) la collaboration—ne pas donner de conseils non sollicités,

14) l'apparence—augmente le respect de vous-même, sensation de bien-être et confiance^{11, 22, 37, 41, 42, 50, 62, 70}.

Pour terminer, un dentiste psychologue devrait être physionomiste. Il est utile de mettre en œuvre les méthodes de la "Physiognomonie." Le visage est le reflet de l'âme et nous donne le caractère comme il est donné dans l'écriture dans la graphologie.

Et comme le disait Francis Braceland⁴² "Tout dentiste devrait être psychiatre." Saigner³⁹ cite des cas de manifestations gingivales, périodontites, de manifestations buccales, lichen planus⁴³, qui ont une origine dans un désordre émotionnel.

III—L'assistante

La personnalité qui compte après celle du dentiste est celle de l'assistante ou "nurse." Elle doit avoir une belle apparence extérieure, être sympathique, avoir de la courtoisie, de la politesse, du charme et de la patience. Cette dernière qualité est aussi utile (que dire de l'avant-dernière) vis-à-vis des patients que du dentiste. Elle doit avoir une voix harmonieuse surtout à cause du téléphone où elle est la première à entrer en contact avec nos patients⁴⁴. C'est par elle que nos patients nous jugent dès le premier abord. Elle doit être douée d'une bonne mémoire et être pleine de bonne volonté.

IV—Le bureau

C'est le lieu géographique où se déroule toute la vie professionnelle du dentiste. Il le faut bien situé dans la ville et le quartier, et facile à atteindre par le patient¹⁸. Il doit y régner un climat de paix qui consiste à éviter tous les bruits qui ne sont pas indispensables. Mûrs et plafonds seront insonorisés, les planchers seront couverts de tapis de laine ou de caoutchouc, même les bruits de sonnerie de téléphone ou de la porte d'entrée seront réduits pour ne pas porter sur les nerfs des patients et du dentiste⁴⁶.

Le salon d'attente sera décoré d'une façon artistique. Il faut créer une atmosphère de raffinement; tout le monde aime la beauté, c'est une chose innée chez tous. Ce n'est ni un luxe ni un superflu. Agrémentez de fleurs vos meubles, mettez en permanence de belles revues, qui dénoteront le goût artistique de celui qui est maître céans.

Les sièges seront confortables et feront oublier l'attente souvent trop longue au gré du patient¹¹.

Hill³³ note que le salon d'attente est le milieu de culture où s'incube la bonne et mauvaise volonté du patient. Quelle chance pour l'assistante de cultiver la bonne volonté des patients par la bonne tenue de cette pièce!

La salle d'opération sera d'une propreté rigoureuse, l'agencement chirurgical sera fait de telle façon qu'il ne rappellera pas trop la salle d'opération de chirurgie générale. L'idéal sera d'avoir une pièce disposée à la vue de tous nos patients dans laquelle seraient groupés tous les appareils qui servent à la stérilisation.

En résumé, il faut veiller à avoir un ensemble harmonieux de couleur, d'éclairage et d'agencement de matériel⁵⁰.

Relations entre les dents, la bouche en général et les émotions

Les facteurs psychologiques qui donnent de l'importance à notre profession de dentiste vont chercher leur base profonde dans les relations qui existent entre les dents, la bouche et les émotions.

Après la naissance, la bouche sert à ingurgiter la nourriture et devient bientôt une région importante par laquelle sont satisfaits bien d'autres besoins et sert à

des fonctions physiologiques et psychologiques.

Chez l'enfant, elle permet de sucer, de mordre, de saliver, d'exprimer certaines tensions émotionnelles ainsi qui d'extérioriser certains caractères de la peur. La bouche devient un facteur déterminé de survivance⁶³. Darwin, dans son traité "Expression of Emotion in Man and Animals," dit que l'homme ainsi que les animaux lorsqu'ils sont en colère, montrent leurs dents. Il est aussi probable que nos ancêtres de la préhistoire devaient se servir de leurs dents comme des armes. Guignard³⁰ dit que la dent nous sert non seulement comme organe de mastication, mais que même, avant les mains, chez l'enfant, elle sert à la préhension, à l'attaque et à la défense de la vie animaux. La bouche, d'après la théorie psycho-analytique, aurait aussi un but érotique dès l'enfance.

Chez l'adulte, elle sert non seulement au baiser, mais elle dénote aussi certaines perversions et détermine certains traits du caractère²⁶. Elle joue aussi un rôle important dans l'instinct. Vers le sixième mois de la vie, l'apparition de la dent coïncide avec l'époque du sevrage, époque qui, dans la vie psychique, est considérée comme cruciale. L'enfant sevré du sein maternel ou, dans l'allaitement artificiel, privé de sa tétée, voit se présenter à lui, par le changement qu'on lui propose, la nécessité de la lutte pour l'existence.

De deux choses l'une, ou il refuse, se réfugie dans la facilité, (cela devient l'origine de la paresse, de la passivité, du parasitisme), ou bien il accepte facilement le passage de la phase labiale à la phase dentaire et deviendra agressif, combatif, violent, voire cruel. L'abus de cette agressivité peut l'amener à l'anxiété névrotique, même au sadisme. Le passage de la première à la deuxième dentition est marqué par un complexe d'infériorité qui correspond à l'époque de la pré-puberté et de la puberté.

La carie dentaire est ressentie gravement par l'être humain comme une atteinte à un organe essentiel. La perte de ses dents est liée à des complexes qui engendrent des chocs plus graves que ceux que nous pouvons voir en surface.

Chez certaines femmes, l'avulsion ou l'extraction est parente du viol ou de l'accouchement. Chez certains hommes, elle touche au complexe de castration et peut amener chez les deux un délire de persécution.

Conclusions

Comme nous l'avons vu dans les pages qui précèdent, nous pouvons dire avec Stoloff⁶¹ que le dentiste, en plus de ses qualifications techniques, scientifiques et esthétiques, doit, pour réussir, être un excellent psychologue. Le vrai but de la dentisterie n'est pas seulement une oeuvre scientifique, c'est dans le cas de chaque patient une relation personnelle dans laquelle seront mêlées la sincérité, les connaissances du praticien et la confiance du patient⁷⁰.

Le dentiste devrait avoir, chaque seconde, présente à l'esprit la règle suivante: "Donnez toujours à vos patients la qualité de dentisterie que vous voudriez avoir dans votre bouche"⁷¹ qui découle du principe de la morale universelle exprimé en ces mots: "Ne faites jamais aux autres ce que vous ne voudriez pas que l'on vous fasse"⁷².

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ERRATUM

Dans la livraison spéciale du Cinquantenaire de l'Association, parue à la fin de mai, notre confrère, Paul-E. Poitras, avait écrit un article intitulé "Un axiome reconnu par les dentistes du Québec."

L'auteur nous signale quelques erreurs.

Vers le milieu de la deuxième colonne de la page 388, au lieu de: "dans le but d'éviter certaines frictions, en 1871, les anglais . . .", il faut lire: "dans le but d'éviter certaines frictions, en 1897, les anglais . . ." Vers le milieu de la deuxième colonne de la page 389, au lieu de: "le major Levi Mower, propriétaire du "Canadian Courant" . . . il faut lire: "Nahum Mower, frère du major Levi Mower, son protecteur . . ." ⁽¹⁾; vers le tiers supérieur de la première colonne de la page 390, au lieu de "revien", il faut lire "revient. . ."

(1) propriétaire du "Canadian Courant".



Comité Exécutif de l'Association Dentaire Canadienne pour l'année 1952-1953. Première rangée, de g. à d.: H. M. Cline, Vancouver, président-sortant-de-charge; Gustave Ratté, Québec, président; A. J. Coughlan, St-Jean, N-B., président-élu. Deuxième rangée, de g. à d.: R. R. McIntyre, Calgary et S. J. Phillips, Oshawa, membres du Comité.



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Réunion du Bureau des Gouverneurs à Vancouver, en juin 1952

Deux questions ont surtout retenu l'attention des délégués au cours des délibérations, qui ont marqué l'assemblée des gouverneurs de l'A.D.C., qui eut lieu les 11, 12, 13 et 14 juin, dans la province baignée par les eaux du Pacifique.

La première concernait la fluoruration de l'eau et la valeur de cette mesure dans la prévention de la carie dentaire.

Les dentistes canadiens—et surtout ceux de la Colombie britannique, qui depuis des mois avaient mené une campagne de persuasion auprès du Ministère de la Santé et des autorités sanitaires de la ville de Vancouver—désiraient un exposé officiel sur cette question de la part de l'organisme dentaire national.

On avait confié au Comité des Recherches le soin d'étudier à fond les statistiques publiées sur les effets de la fluoruration de l'eau quant à l'incidence des caries.

On comprend l'intérêt de la profession dentaire sur ce sujet et son désir de s'appuyer sur une déclaration formelle venant d'une association responsable pour recommander l'addition de fluorures aux eaux des aqueducs dans tous les coins du pays.

Ce Comité, après avoir considéré les résultats des expériences conduites aux Etats-Unis et au Canada—notamment à Brantford, sous les auspices du Ministère de la Santé Nationale et du Bien-Etre Social—a remis aux gouverneurs une déclaration, qui a été quelque peu amendée par l'assemblée géné-

rale, mais qui contient en substance une approbation de cette mesure, mais aussi une mise en garde contre un optimisme exagéré. Cet énoncé dit de plus que les recherches dans ce domaine ne sont pas complétées et qu'il faudra encore quelques années pour juger des effets définitifs de cette mesure. Le Comité, en outre, recommande aux municipalités qui adopteront la fluoruration de la faire sur une base expérimentale.

Comme on le voit, la politique de l'Association sur cette question est basée sur la prudence; l'Association ne veut pas appuyer à fond des théories que les faits ne prouvent pas encore définitivement.

L'autre décision, qui a une répercussion sur toute la vie professionnelle dentaire canadienne, a trait à l'établissement d'un Bureau National des Examineurs Dentaires. Jusqu'à cette année, le Conseil Dentaire Canadien était le seul organisme susceptible de décerner des licences permettant l'exercice de la dentisterie dans toutes les provinces, excepté Québec et la Colombie britannique. Dorénavant, l'A.D.C. prend sous son égide l'octroi des licences et *toutes* les provinces adhèrent à cette nouvelle organisation. Les détails du rouage de ce Bureau ne sont pas définitifs, mais son existence légale a été sanctionnée par le gouvernement fédéral. Au cours de la réunion de Vancouver, le Conseil Dentaire Canadien a remis à l'Association ses pouvoirs, ses archives, ses papeteries et ses argents, en déclarant que son oeuvre était achevée et qu'il cédait volontiers ses attributions à l'A.D.C. Toutefois, les gouverneurs ont prié le C.D.C. de poursuivre ses activités encore une année pour leur permettre de poser sur un pied solide l'organisation du Bureau et pour que les provinces fassent amender leur loi dentaire en conséquence.

Pour résumer le travail du Bureau des Gouverneurs à sa réunion de Vancouver, disons que tous les Comités permanents et provisoires ont présenté des rapports intéressants et bien au point. L'impression qui se dégage de ces assises en est une de satisfaction de constater l'esprit d'organisation avec lequel sont conduites la présentation des rapports et leur discussion. Tous les chefs de Comités, grâce à l'expérience acquise depuis plusieurs années, connaissent bien leur domaine et dirigent les délibérations d'une façon efficace et rapide.

Il fait bon de constater l'existence d'une Association active et prévoyante pour appuyer le travail de chacun de ses membres dans son cabinet particulier, au bénéfice de la population canadienne.

GERARD DE MONTIGNY

Nombre des dentistes à l'emploi du Gouvernement Fédéral (au 1er janvier 1952)

Ministère des Affaires des Vétérans.....	40
Ministère de la Défense Nationale.....	128
Ministère de la Santé Nationale et du Bien-Etre Social.....	10
Total.....	178



Photo by R. M. Patterson, Sidney, B.C.
Halftone by Courtesy of the Editor of Hudson's Bay Co.'s "Beaver"

PULPIT ROCK
at the gate of the
SOUTH NAHANNI RIVER, N.W.T.

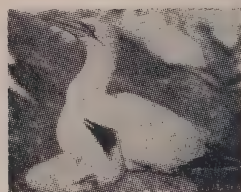
*Not for one single day
Can I discern my way;
But this I surely know—
Who gives the day
Will show the way,
So I securely go.*

JOHN OXENHAM.

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DR. N. LESLIE MARTIN
President, The Montreal Dental Club—1952



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, SEPTEMBER, 1952

No. 9

The Limitations of a Transition Period*

by ROY G. ELLIS,† D.D.S., M.Sc. (Dent.), F.D.S.R.C.S., Toronto, Ontario

THE ROOTS of modern dentistry grew strong during the 18th century. The ingenuity, knowledge and skill of one man were in no small measure responsible for the course those roots were to follow in the future. In many respects the season was favourable for their nourishment, but it required the creative genius and professional integrity of Pierre Fauchard to shape the roots from which dentistry has sprung during the 19th and 20th centuries.

A review of the progress which dentistry has made since the end of the 18th century reveals four transition periods. From each of these four periods there emerged significant contributions which have been enlarged and perfected by the research and labour of devoted scientists and professional men. Today these contributions are embodied in the practice of dentistry for the benefit of mankind.

It is obvious that we cannot be too arbitrary in defining the boundaries of a transition period. History proves that a new development often takes decades and even centuries to evolve, although a distinct era may be noted during which the results of the evolutionary process are most significant. History also establishes that advancements are often restricted by limitations during the formative stages.

THE FIRST TRANSITION PERIOD

The first of these transition periods

was concerned with the elimination of pain. From the writings¹ of the 17th, 18th and the early decades of the 19th centuries it is evident that there was increasing awareness of the suffering associated with dental disease and its treatment. For illustration of this fact we need only recall the artists' caricatures and prints coming down from the past. The long record of strange remedies that were offered to relieve suffering, reveals the effort that was made toward the elimination of pain, but the discovery of anaesthesia by Horace Wells in 1844 marked the first success of this effort. This brilliant achievement established a landmark, the first in a series of notable advances toward the elimination of pain in the practice of dentistry.

Scepticism and superstition had surrounded the use of sleep-producing drugs. Therefore, Horace Wells' success was all the more remarkable because of the discouragements he had suffered at the hands of scientists and members of his profession. Just a few years before Wells introduced nitrous oxide as a general anaesthetic, a well-recognized surgeon of the day had written: "The escape from pain in surgical operations is a chimera which is idle to follow up today." While it may be said that the first transition period ended triumphantly, the animosity and bitterness of the period, and Wells' untimely suicide, focus only too clearly

*Presented as a Luncheon address at the Ontario Dental Association Convention, May, 1952.

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the constraints which bedevil the process of evolution.

THE SECOND TRANSITION PERIOD

Developments in the second half of the 19th century warrant the historian's description of this period as the "era of technological developments." Many factors influenced the surge forward in the adaptation and discovery of materials, instruments and techniques in restorative dentistry. It suffices to relate briefly a few of the most significant contributions of the period. There was the introduction of cohesive gold foil in 1855; the use of the rubber dam in 1864; and in the same year the use of vulcanite for denture construction; the invention of the dental engine followed in 1871; and the long turbulent course of the introduction of silver amalgam which ended in its recognition as a restorative filling material in 1885 following G. V. Black's memorable scientific work. Wm. H. Taggart's introduction of the casting technique came at the end of the second period.

Again, many limitations delayed progress during the 50-year technological transition period. The "amalgam war" which emanated from the undesirable properties of the early silver amalgam and the unscrupulous exploitation of this material by some members of the profession of that day delayed for nearly 50 years the use of this valuable restorative material. The use of vulcanite material was delayed for two decades because of restrictions over patent rights. These two incidents are good examples of the "modus operandi" of limiting factors during a transition period.

THE THIRD TRANSITION PERIOD

Just before the end of the 19th century (1895 to be exact) a German professor at the University of Wurtzburg gave to the world the x-ray tube. Within a few months of Conrad Roentgen's amazing discovery the first roentgenograms of the teeth and jaw were made. It was thus made possible to record

shadow pictures of the varying densities of teeth and bone, and it was recognized that variations in density could be caused by disease.

About the same time, the possibility to which others had alluded previously, that disease in the mouth might have an effect on the general health of the individual, was the subject of an address by an English physician, William Hunter, at McGill University, in which he referred to the ingenious metallic restorations used to preserve teeth as being "mausoleums of gold over a mass of sepsis."

These two developments contributed, during the first two decades of the 20th century, to the intensification of efforts to eliminate infection from the mouth.

Unfortunately, a great controversy developed which soon involved both the medical and dental professions and the elimination of infection ran wild. Before this transition period settled down, many teeth were removed indiscriminately by order of physician and dentist, frequently without evidence that they were infected or were contributing to ill health.

THE FOURTH TRANSITION PERIOD

The fourth era, the one in which we are now living and which is so close at hand that perhaps we are not in a position to evaluate it at this stage, has been directed toward "early recognition and early treatment" of dental disease. This transition period received new impetus immediately following World War I, when socially-minded individuals placed great emphasis on child welfare. In November 1930 President Hoover called a conference in Washington which became known as the White House Conference on Child Health and Protection. President Hoover² announced that the conference had been called "To study the present status of the health and well being of the children of the United States and its possessions; to report what is being done; to recommend what ought to be done and how to do it." A few years later the economic depression of the

Thirties found some dental practitioners with free time which they were willing to devote to children. Other factors have probably contributed to the movement which emphasized "early recognition and early treatment" of dental disease.

But there were restraints during this fourth transition period. Important among these was the limited coverage of dentistry for children in dental schools of the day. Wm. Gies in his report³ (1926) stated that only four dental schools offered dentistry for children in the curriculum. In 1928 seven schools listed courses in pedodontics, and by 1936 the number had risen to 42. And although education in dentistry for children has received increased recognition in dental schools, apathy on the part of too many dentists toward the child patient has continued to restrict the treatment so urgently required by them. One further limitation may be cited in the fourth transition period. It is the enormous backlog of need for dental service by all groups of people, but especially for children.

If we have learned anything from this brief review of the development of dentistry it must surely be that most of the important contributions to the practice of dentistry as we know them today emanated from the past after withstanding many and varied trials and limitations which took a heavy toll from those who were in the vanguard. You might well ask if there is a lesson in all this for the future.

With ever increasing frequency we are being admonished by speakers and writers on every hand that members of the dental profession must become more "prevention minded." Willard Fleming,⁴ Dean of the Faculty of Dentistry, University of California, and in my opinion one of dentistry's keenest contemporary observers, expressed the view recently that our new responsibility "is the prevention of dental disease, and this is located along the road to the future." Dr. Gerald Franklin in a paper⁵ published in the February 1952 issue of the *Journal of the Cana-*

dian Dental Association stated in the opening paragraph: "Prevention of disease is the aim of all health services and dentistry is increasingly concerned with the prevention of dental disease." In an editorial⁶ in the December 1951 issue of the *Journal of the American College of Dentists* we read the opinion expressed that "we are now securely within the field of 'control' (of dental disease) with no small proportion of 'repair' waiting to be done. At the same time we know about preventive measures beckoning to us."

These are but a few of the host of such statements that pervade our current literature. However, lest you are misled into thinking that interest and concern about preventive measures are recent developments I would remind you that Hurlock¹ in 1742 observed that "havoc wrought by caries in the deciduous teeth was undoubtedly due to diet." John Baker¹ of Philadelphia in 1779 advised all his patients "Never suffer any of the aliment of food to remain between your teeth after eating, especially if you have any carious teeth; rinse the mouth with milk warm water after every meal." How up-to-date!

Perhaps we may take the liberty of expressing the hope that future events may prove that we have entered an active transition period from which the profession will ultimately emerge with more effective preventive measures. Some of these measures are probably already known to us. When the pages of history are complete in relation to this era, perhaps 20, 30 or 50 years from now, some of the following factors may appear in the record as the limitations which beset the development and assimilation of the preventive procedures:

LIMITING FACTORS

(1) The first limiting factor may well be the accumulation of treatment required by the total population. Many excellent attempts have been made to present realistically the magnitude of the problem associated with service

need. The backlog plus the annual increment being added by new disease presents a staggering potential need for service. Even if totally effective preventive measures were to be adopted tomorrow, many decades would follow during which the profession would continue to meet its responsibility in providing a "repair service" and at the same time assume its new responsibility for a preventive service. This shift in responsibility will take place gradually and it will be determined by the introduction of effective preventive measures. At the beginning of this century the medical profession gave little time and attention to the healthy baby, but today it is routine for mothers to take their babies to the physician, to the pediatrician or to the child health centre, not always because the babies are sick and need the services of the physician, but to keep them well. A similar well baby service aimed at keeping the child's mouth healthy can be just as worthwhile economically to parents as the preventive service provided by the physician, but we must first believe in it, ourselves. It is so easy for us to become overwhelmed by the demands for treatment service at the expense of employment of preventive measures. Recognition of this limitation is our immediate responsibility — it is the responsibility of every dentist registered in this country.

(2) There is another factor which augments the treatment load and which may some day be regarded as one of the important limitations operating in this period. A vast social and economic levelling off process has been taking shape in our civilization during the last two decades. This equalizing process has resulted in the so-called middle class passing from a minority to a vast majority. It has created a new demand for service from a larger group of the population who are potentially able to bear the cost of their dental treatment needs. Will the increased demand for reparative dentistry created by this levelling off process further delay the

evolution of the preventive program?

(3) The effect of the limitations of the accumulated backlog and increasing demand for treatment service may be augmented by a third factor, namely the worsening ratio of dentists to the population. Figures released recently by the Canadian Dental Association indicate that while there was an increase of 886 dentists in Canada during the years 1938-1952, nevertheless, this was offset by an increase in the population which was proportionately greater. It could well be that the shortage of graduate dentists will be listed among the restrictions operating during this period. Increased facilities for the education and graduation of a larger annual class of dentists and for the training of dental hygienists are urgently needed. This need can only be met in a new building, located in the vicinity of the teaching hospitals and planned for the integration of training of dentists with ancillary personnel.

(4) The acceptance by the dental profession of ancillary personnel such as the dental hygienist is vitally related to the preventive program. Much time and thought has been given to the employment of ancillary personnel in the dental office. Every study which has been made indicates that the dentist's capacity to provide the health service for which he is specially trained is doubled or trebled when he employs competent ancillary personnel. It is incumbent upon dental schools to provide training for ancillary personnel and an opportunity for graduates to learn to utilize the services of the dental assistant, the dental hygienist and the technician. Our success or failure to accept ancillary personnel into the practice of dentistry in the future is not unrelated to the discussion at hand.

(5) A fifth limitation that has made its appearance already in the world is the tendency to regard favourably the establishment of an all-embracing welfare state such as the National Health

Service of Great Britain. Under this type of all-inclusive plan the child patient has been virtually abandoned and it is easy to see the effect upon the adoption of preventive measures.

(6) What research is to the development of new knowledge, dental health education is to an era of prevention. If the knowledge we have available today could be more effectively communicated to every citizen of this country, through dental health education, the results from the preventive standpoint would be most significant. Indeed, this possibility may not be fully appreciated by every dentist and therefore we state emphatically that education of the public and education of the dentist should go hand in hand. Failure to recognize this fact may introduce a further limitation.

(7) It is logical that the child patient must command a position of first priority in the office of the general practitioner in an era of prevention. It is interesting to note that the interest in dentistry for children is becoming increasingly apparent as was evidenced by the encouraging attendance at the meeting of the Canadian Society of Dentistry for Children held on Saturday, May 10, 1952. This trend is the outcome of the inspirational leadership of a few men who are making a supreme effort on behalf of the child patient.

But as a profession we cannot afford to become complacent about the progress already made. The child patient must receive a still greater proportion of the dentist's time before we can claim that apathy toward the child patient has vanished and the preventive era can move forward without hindrance.

(8) There are many other factors which might be considered among the potential limitations to the transition period ahead. Our present interpretation of a preventive program places the responsibility for it on the general practitioner. Therefore the multiplica-

tion of the specialties in dentistry should give cause for consideration if not concern. We give due recognition to the important contribution the specialists make in the practice of dentistry today and we also recognize that a limited number of specialties will be essential in a so-called preventive era, but there is danger in segmentation of the profession into more and more specialty groups at the present time. How easy it would be to misinterpret the following statement which appeared in a very recent issue of the *Journal of the Canadian Dental Association*: "Prevention of malocclusion is not exclusively the responsibility of the orthodontist. It is much more the responsibility of the dentist." We are convinced that the author did not intend to imply that the dental profession now has a sister profession of orthodontics. Knowing the author of the above statement and his views we are further convinced that he would endorse the following definition: "The obligation of the profession to the public is to help children grow up with healthy mouths which will stay healthy." Surely, this is the responsibility of the general practitioner of dentistry and this is the interpretation we would give to the orthodontist's statement quoted above.

But we cannot leave the general practitioner to assume such a dominant role in the new age without considering one further aspect of this subject. The knowledge and procedures relating to practical preventive measures must be well defined and readily understood if they are to be applied in general practice. This knowledge and these procedures are today scattered through the literature, "in bits and pieces," as it were. At times it becomes confusing as we stop to sift out opinions from statements supported by facts. There is need for organization of this knowledge in simplified form and clarification of practical preventive procedures. Opportunities have been provided for members of the profession to keep abreast of new knowledge and proce-

dures through continuation courses in dental schools, study groups in local societies, and other means. But the response to these opportunities, particularly in dentistry for children and preventive measures, has not been encouraging and calls for study of the whole question. Perhaps decentralization of these courses, by taking them into the field, may stimulate more interest. A great responsibility for the integration, correlation and dissemination of this knowledge rests with the educators in dentistry. Failure at this point could be a hindrance to progress during the present period.

These are some of the limitations that we as a profession should recognize and be prepared to meet. Equally significant impediments delayed the development of the four eras preceding the one we now face. In this enlighten-

ed period of evolution, providing all members of the dental profession encourage an attitude of tolerance and understanding, I believe it is possible to promote a dental welfare state which will be directed by the profession toward the prevention of dental disease and which will serve the best interests of the people of Canada.

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Less Pain For Your Patients

by CHARLES A. LEVINSON, D.M.D., Boston, Mass.

MANY attempts have been made by dentists to make "drilling" of cavities easier for the patient. Fear of pain on the part of the patient has kept thousands of scared patients away from non-busy as well as from busy dental offices. There is so much necessary dental work to be done for the public that it is incredible that so many mouths are so sadly neglected.

Recognizing the fact that the chief obstacle in the way of correcting the effects of dental diseases has been fear of pain, I have attempted to introduce a new technique in the field of operative dentistry for less pain in drilling cavities.

For quite some time I have been experimenting with a pet idea—to alleviate as much of the pain or sensitivity in drilling cavities as possible.

I have found, by placing mineral oil (U.S.P.) on the bur before drilling—or a drop of this oil in the cavity, much of the heat sensation is removed.

Several hundred of my patients attest to this fact.

The use of the mineral oil idea helps to cut out the usual heat friction. Without its use—the steel drill is in constant abrasion with the enamel and the dentinal structures of the tooth—creating considerable heat which excites the nerve fibrils to the extent of hurting the patient. Several oil drippings will be necessary to complete each drilling operation.

When finished with the drilling, the oil is easily removed with pledgets of cotton—and the cavity flushed with alcohol, followed by warm air-blasts from the chip blower. Then pursue the regular cavity and filling procedures.

Use only sharp burs. Very light pressure should be exerted in drilling. Heavy pressure definitely slows the bur and reduces cutting efficiency. I sincerely hope that this technique will prove useful to patient and dentist alike.

Temporary Splinting

by ROBERT F. HARVEY,* D.D.S., Montreal, Quebec

THE use of permanent and temporary splints to stabilize loose teeth dates back many years. They are usually employed¹

1. To stabilize teeth loosened by accident.

2. During endodontic treatment; e.g., in pericementitis, when the occlusion is relieved.

3. To stabilize loose teeth during periodontal treatment.

4. Until permanent splints, bridges or dentures have been constructed.

Temporary splints have been described using silk or grassline ligature and stainless steel or brass wire.² The disadvantages to this type of splint lie in the fact that (a) the teeth will undoubtedly be moved during ligaturing—although this may be highly desirable in certain cases; (b) they must be periodically removed, necessitating the remaking of part or all of the appliance; (c) sound teeth are preferably required on either side of those loose; and (d) it is unhygienic. The main advantage to this type of splint lies in its simplicity of construction and low cost.

Where more rigidity is desired, removable continuous cast splints have been described.^{2,3} Impressions are taken and precious metal or acrylic splints cast. The disadvantages to cast splints are (a) loose teeth may be moved during impression taking; (b) it is extremely difficult to construct such an appliance eliminating all undercut areas and at the same time placing it where it is most desirable; if all undercut areas are not entirely eliminated, teeth will be moved every time the appliance is inserted or withdrawn by the patient; (c) the time and cost of construction. The chief advantage to this type of splint is its rigidity when in place.

Endodontists⁴ have long advocated the temporary stabilizing of an anterior tooth loosened by a blow, by bridging it to the adjacent tooth with cement or some similar material. Orthodontists⁵ use simple acrylic splints to stabilize prematurely erupted permanent teeth.

These latter ideas suggested what the writer believes to be a simple, effective, inexpensive, temporary, fixed splint (i.e. easily removed by the dentist but not by the patient), by the direct use of the popular acrylic materials. Where it is desired to splint several teeth, such as the lower six anteriors, the acrylic is mixed slightly thinner than normally required, patted out into a long strip, and applied piece by piece to the labial and lingual surfaces of the teeth where desired until all the teeth are completely circumscribed; if the material sets too quickly to do it all in one application, then the labial surface may be done first, allowed to set, and then the lingual portion is added. If only two or three teeth require splinting, then it may be more satisfactory to "paint" the material in place using the "Brush Technique." Or again, the two methods may be combined.

ADVANTAGES

The advantages to this direct acrylic splint are:

1. The teeth assume their normal positions prior to the setting of the acrylic material.
2. The acrylic may be placed where desired regardless of undercuts which would be encountered in the indirect method.
3. It is rigid when in place; it can be made as strong as desired simply by making the splint thicker, or by adding to it.

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4. It could, by the brush technique, be placed so as not to interfere with bridgework or removable dentures present.

5. It allows the continuation of periodontal treatment without the necessity of removal; e.g., grinding, scaling, packing, gingivectomy and the use of interdental stimulation.

6. It is easy to remove when desired and is easily remade, although in some cases the same cut splint could be again used by "soldering" the ends together with the brush technique.

7. It is of particular value where a full upper denture is in contact with a few lower anterior teeth while periodontal treatment is being instituted and until new dentures or permanent splints have been constructed.

8. Little time is required for construction.

9. The cost is proportionately low.

10. The construction is simplicity itself.

DISADVANTAGES

The main disadvantage to this type of splint is its bulk where many teeth are involved.

The main problem encountered in this and any type of rigid splint is the

possible development of periodontal abscesses. To prevent this, the occlusion should be equilibrated immediately following the "setting" of the splint and periodontal treatment instituted as soon as possible.

CONCLUSIONS

A simple, effective, temporary splint has been described using self-curing acrylic materials which may be utilized by the general practitioner to stabilize loose teeth.

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N.B. The above technique will suggest other uses to the reader such as the making of temporary bridges in the posterior part of the mouth while fixed bridgework is being constructed—to prevent movement of the abutment teeth.

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Psychology in Dental Practice*

by WALTER B. PRESSLEY,† University of Toronto

"In a moment he had established between himself and his soldiers the understanding by which, more than by cannon or bayonet, victories are won."

Peter Bayne, *Essays, Bonaparte in 2nd series*, p.188.

UNTIL RECENTLY, the emphasis in the dental profession has been placed mainly upon the acquisition of scientific knowledge and specific technical skills. But, since dental practice involves personal contact between dentist and patient, scientific knowledge and technical skills alone are not ade-

quate for success in this profession.

In our practice we work with patients as well as on them. Since success in working with people depends upon sound personal relationships, it is a fundamental requirement that we develop an understanding of how these relationships are brought about.

The establishment of these relationships depends upon an understanding of human behaviour and the application of this knowledge in our personal contacts. The science dealing with the

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study of human behaviour is termed psychology.^{1,2,3} Therefore, having an insight into the basic principles of psychology, we are better able to comprehend how the behaviour of both the patients and ourselves influence the conduct of our practice.⁴

Throughout the past years the practice of pedodontia has been dolefully neglected.⁵ With respect to their child patients, many dentists looked on with a feeling of dire apprehension rather than with one of pleasant anticipation. Undoubtedly, this reaction was due, in part, to the fact that some children tend to disturb the dentist's emotional equilibrium.

The first issue facing us in pedodontia is child behaviour.⁶ Therefore, it becomes an absolute necessity to acquire the ability to interpret this behaviour and thus determine the best methods of child management in our profession. The title "doctor" confers upon us great obligations toward human welfare. We cannot look with aversion toward treatment of children simply because our personal attributes are incompatible with the proper management of child patients.

It is essential to understand how children learn because only with this insight can we direct their behaviour adequately and efficiently. The child must respond to each new experience in life. "His basic response is either positive or negative."^{1,7} A positive response is one of approach; it has a meaning of pleasantness. A negative response is one of withdrawal; it has a meaning of unpleasantness.^{1,3,7} In this manner the child classifies his early experiences into either pleasant or unpleasant. Due to the child's limited experiences his responses will be simple, uncritical and decisive.²

Learning can take place only through the interaction of the organism and its environment.^{1,2,3} The process of learning is instinctive, but the product of learning, i.e., the changes in our behaviour, is acquired. Since mental development can take place

only through learning, human character is therefore acquired, i.e., the individual changes by virtue of his experience.²

"Selectivity is the fundamental characteristic of learning."⁷ Certain patterns of behaviour initiated by the child during learning are fixed, while others are eliminated. Those behaviour patterns which produce satisfaction within the child are generally fixed, the unsatisfactory ones eliminated. For his immediate responses, the child selects from his accumulated experiences of the past, those behaviour patterns which he feels are most suitable for the solution of his immediate problem.²

The difference between adult and child learning is not a difference in kind but rather a difference in degree. Because of his limited knowledge and experience, the child is compelled to react in a habitual way to a similar situation more frequently than an adult.⁸

"Emotions play an essential role in learning,"³ and behaviour is never purely intellectual or emotional. Emotionally, the child is simple, undifferentiated and spontaneous. He responds to any situation either positively or negatively. When frustrated in his desire to achieve a goal, he chooses only one of two courses of action — attack (approach) or escape (withdrawal).⁷ Since attack and escape are the two basic response patterns which may be employed, the corresponding emotions produced are called anger and fear.^{1,2,3,7}

In both anger and fear some object in the environment is selected. Such objects remain more or less fixed for the child as an emotional "stimulus".⁷ Whenever the child subsequently perceives this "stimulus" the corresponding emotion may be aroused. "There are no objects which from birth cause 'emotions' in children."¹¹

"The human infant is born with a very limited emotional equipment. There are only very few specific

stimuli which are originally effective in producing an emotion, namely; (a) a sudden, loud noise; (b) a sudden loss of support; (c) direct bodily harm; (d) interference with breathing; (e) restriction of movement."¹¹

FEAR

The average child accepts the need for dental care in the same manner as he accepts other things in life. Nevertheless, there are children who react toward the dental situation with different degrees of fear.¹² As stated previously, fear is the emotion which is aroused when an individual wishes to withdraw or escape from a situation. Though fear is a basic emotional response there are no objects which cause this emotion from birth. Therefore, contrary to popular belief, there is no natural fear of the dental situation. This fear is acquired through conditioning in many ways. Children lack judgment since they lack experience through which judgment is acquired. Thus, they learn largely through imitation and suggestion.⁹ Most fears of the dentist are induced through the revelations by parents of tormenting dental experiences.¹⁰ "These acquired fears can be easily and rapidly established in the growing child."¹¹

Once established, fears are not held to a specific experience. They tend to spread rapidly to other similar objects and situations. Thus, if a child has had a "fearful" experience, as with a physician who wore a white coat, then he will fear the dentist who wears a white coat. "Since these fear reactions tend to spread until a whole series of fear reaction occur, it is essential that they be carefully and deliberately eradicated."¹¹ The basis of fear is ignorance or unfamiliarity.^{1,2,11}

CONTROL OF FEAR

Having some understanding of the casual factors responsible for fear reactions in the child, we can attempt to prevent them in dental practice.

The element of new and strange situations in the dental office may be disturbing to the child because strangeness is a potent factor in producing fear. Emotional disturbance is aroused in new situations because a child is faced with a circumstance which demands an adjustment for which he has no ready-made behaviour.^{1,2,3}

However, when the child faces this new situation with someone in whom he has learned to confide and who shows no fear of that situation, then the feeling of disquietude in the child is being replaced by assurance. Therefore, it becomes apparent that when a child enters the operating room for the first time, he should be accompanied by the parent whose mere presence is often sufficient to allay the fear.¹² It is observed here that familiarity operates as a moderator of fear. The child is not divorced from its mother to face suddenly a new situation alone.

If the child is suddenly left alone in an entirely new situation the fear may rapidly resolve itself into terror—since "terror is fear out of control".⁷ The necessity of not leaving the child alone in an operating room before he is thoroughly familiar with it, is readily understood.

"Since fears are irrational in origin then the use of reason in removing them has little or no effect. To be conquered fears must be faced and adjusted to."¹¹ For teaching the control of fear assurance is the prime essential. The suggestion of fear eventually disappears in an atmosphere of perfect assurance. To provide assurance for fear, ridicule and censure must be eliminated. Telling the child never to be afraid of the dental situation is a hypocrisy, since no human being ever knows enough to be unafraid at all times. Fear is dissolved by knowledge and therefore information, where necessary, should be imparted. Because of the adverse effect of fear on the establishment of harmonious personal relationships between the child and

dentist, the removal of fear is a challenge and responsibility. Dentistry moves onward as the conquest of fear becomes complete.

Other unfavourable behaviour patterns may be displayed by the child during dental treatment.

ANGER

Anger is the emotion aroused when an individual is thwarted in his attempt to overcome an obstacle.¹ When the child feels that it cannot succeed in its attempt to overcome an obstacle, the bodily energy, marshalled to a challenge, may get out of control and give rise to a spasmodic and inefficient type of total behaviour called "temper tantrum". Temper tantrums are generally formed in homes where an adjustive value is given such behaviour.⁴

Being faced with a situation from which the child wishes to withdraw, he becomes confused and the resulting behaviour becomes inefficient. As a result, such hysterical responses as nausea may occur. In this manner the child escapes the situation "effectively".⁴ This pattern of behaviour may become a habit, however.

NERVOUSNESS

"Nervousness is usually the result of acquiring undesirable habits of emotional expression".¹¹ It is most essential to treat a nervous child as a normal child, since his only chance of discovering that he is normal will come when he is actually treated so.^{11,14}

When a child displays any of these unfavourable patterns of behaviour, no wholesome purpose is served in becoming alarmed about it. All children at one time or another use these unsatisfactory methods of adjusting to difficulty.¹¹ However, in no circumstance should a child be allowed to achieve his goal by the mere exhibition of emotional response. Failure is one of the most important experiences to a child.^{9,11} Only through inhibition

of these unfavourable responses can the child be helped to develop a favourable or "approach" attitude to the dental situation.

The impression created in the child's mind on his first visit to the dental office may determine his future attitude toward the dental profession. In order to create a favourable mental attitude in the child, the method of approach is of vital significance.

A system of approach which pretends infallibility cannot be advocated. There are, however, certain characteristics on which the child unwittingly, but consciously, evaluates the dentist and is impressed either favourably or unfavourably.

CONFIDENCE

The most important factor in the development of a favourable emotional attitude in the child is gaining the child's confidence.¹⁶ The confidence of the child will stem from the confident manner portrayed by the dentist himself.¹⁷ Lack of confidence is a very common personality difficulty which stems from childhood when we lack skill, knowledge and experience.¹⁸ This personality characteristic must be developed since confidence in self is essential for success in paedodontia.

Children sense uncertainty and indecision very quickly. Hesitating movements in all our actions in the child's presence are a deterrent, since the child will readily see an opportunity for taking control of the situation.¹⁹

SINCERITY

Sincerity is the basis for psychological reactions.^{10,20,21} Experience in paedodontia has revealed that children readily recognize insincerity.^{12,20,21} A favourable practice in the dental treatment of children is to state that, "This is not going to hurt you." If we face the facts we realize that this is not always the case. To enlist cooperation for successful end results, the child must be made to realize that it

is within his capacity to bear the discomfort.²³

In the sincere desire and effort to gain the child's cooperation, there may be a tendency for over-demonstration of personal affection. Over-conditioning tends to arouse suspicion in the child. It is necessary to present dentistry to children as one of life's necessities and not as something which we try to sell.¹²

FIRMNESS

The importance of firmness in voice and manner in the dentist's psychological approach to the child cannot be over-emphasized.^{12, 19, 24, 25} Children should be given a very definite understanding that they will be given dental treatment irrespective of their feelings towards the matter. Erect posture during speaking substantiates the firmness of attitude desired.¹⁹ A sympathetic and over-protective manner on the child's first visit, illustrates the demonstration of concern over him, serving immediately to confirm his suspicions and fears which may be present. The use of affection as a motivating factor in children prevents them from learning some important lessons in living.¹¹

CONSISTENCY

Consistency influences learning. "Every act which a child performs is followed by a consequence".^{1, 7, 26} If, in the child's attempt to refuse cooperation in the dental chair, he is able to annoy the operator, he will enjoy the resulting satisfaction. The annoyance of the dentist is the consequence of his act. In order to learn, the consequences of an act must be consistent.^{1, 2} Thus, if a child is not allowed to gain satisfaction from his unfavourable behaviour in the operating room, he will learn to avoid that particular behaviour. Having learned, the child will meet the situation in the future with assurance, because he now possesses a behaviour pattern enabling him to adapt himself satisfactorily to that

situation. Learning through his own efforts he overcomes anxiety and apprehension.

COMPOSURE

Too much emphasis cannot be stressed on the importance of emotional self-control of the dentist. When the child has not accepted the dental situation, he has a desire to annoy the dentist and arouse confusion. By allowing his voice to betray his emotions, the dentist thus makes provision for the child to gain control of the situation.^{10, 28}

ENDURANCE

It has been reiterated that appointments for children should be of short duration.^{20, 25} The psychological factor which creates a special problem in a prolonged sitting is attention. When an individual concentrates his attention too long upon a specific purpose he suffers from fatigue.⁷ Hence, the child patients become irritable and acutely conscious of minor physical discomfort.

FORCE

In controlling unfavourable child behaviour during dental treatment, the use of force, such as the "towel-method," has often been recommended. It must be understood that, whenever physical force is used to direct the behaviour of a child, there is always generated an equal opposing force.⁷ Such an attitude of resistance is prevalent in all of us; we "dislike" being pushed around. This is an exceedingly important aspect in the development of favourable attitudes in the child toward the dental situation.

The obedience or disobedience of a child is determined by the method of approach in training.⁹ Forcing a child into compliance with our desires produces a negative attitude in such a child, and the elimination of negative attitudes in child-dentist relationships is our primary concern. Having observed a negative response pattern in a child, occasionally we decide to

exploit it in order to command the required obedience. During treatment, when a child attempts to cry, vomit, or use some other such psychological tool to gain control of the situation in which he finds himself, we insist on continuance of this particular response, hoping that the child will respond negatively.¹² It must be realized that this influence will cease, if the child discovers the ruse.

Experience has shown that force is often necessary for directing the behaviour of a recalcitrant child,⁶ and, occasionally it must be resorted to in our treatment of such a child in the dental office. However, violence should never be used as punishment. Psychologically, punishment as a device in aid of developing a desired attitude, defeats its own purpose. Since punishment inflicts anguish on human dignity, it never solves a problem but creates a new one instead, namely, revenge.⁷ The act of slapping a child's hands when it grabs the dentist's hands during operative procedures implies admission of defeat on the part of the dentist.¹² Punishment tends to destroy confidence and understanding that should exist between the child and the dentist.

BRIBERY

To achieve cooperation from the child, dentists have invariably used some device for motivating the child, since motivation is the prime essential for learning.¹ As an incentive, some have adopted a policy of giving tangible evidence of their approval of the child's behaviour in the form of gifts, because these seem to be immediately effective.²⁷

If a child is given a gift for conducting himself according to the dentist's demands, he may then expect this consequence to be attendant upon each appointment. Influencing the child's behaviour in this manner is called bribery.⁷ From the dental viewpoint, the use of bribes to achieve success in pedodontia appears to be a very un-

satisfactory practice. The use of bribes implies that the goal is not worth achieving for its own sake but must be enhanced in some way.¹²

Rewards tend to produce reward habits and, in this manner, children learn to put a price on things. They must learn that dentistry is a necessity of life.

ADULT PATIENT

One of the problems encountered in daily practice is the mental attitude of the average patient.²⁸ A number of adult patients anticipate dental treatment with certain degrees of anxiety.^{29,30} This problem merits consideration, since unfavourable attitudes have an adverse influence on the dentist's relationship with his patient.

Since the dentist's complete understanding of his patients' behaviour is limited by the nature of his practice, he cannot determine the aetiology of each patient's anxieties. "The behaviour of an individual in any situation is determined, in part, by the pattern of response which he has acquired toward that particular situation."² The state of anxiety towards dental treatment generally arises out of emotionally charged experiences in the life of the patient.²⁹ These emotional responses could have been acquired through a projection of emotions, occurring when the same object initiates a similar emotional response in different people; for example, "Many people fear dentists not because dentists are fear-inducing objects, but because many persons known to them have responded to dentists in a similar fashion."⁷

Irrespective of how this anxiety or fear was acquired, it must be realized that it is an irrational one, and therefore, requires not a logical but a psychological medium to prevent or remove it. "We must endeavour to substitute a desirable emotional state for an undesirable one—a state of composure for one of disturbance."²⁷

The psychological factor common to

all our emotional states is tension.^{31,32} In fear, apprehension, worry, uncertainty, lack of confidence, there always exists a certain degree of tension and thus it becomes impossible to relax.^{33,34} Without a relaxation of the patient, there can be no efficiency in the service which the dentist renders him.

To reduce the tension produced by anxiety states, assurance is the prime requisite.^{35,36} As stated earlier, confidence is the basic requirement here. The aura of self-confidence present in the dentist emanates to the patient. Fears, which are due to ignorance, can be dissolved largely by accurate information.³¹ However, only intelligent, coherent, and positive speech must be used, since inappropriate words excite undesirable mental states in the patient.³⁶ Speech, therefore, is one of the most appropriate means of reducing tension.

To overcome the unfavourable mental attitudes of the patient, the manner of approach must be realized as significant. Brusqueness intensifies anxiety and therefore composure must be acquired.²⁷ Indecision on the part of the dentist indicates to the patient the presence of inadequacy. The habit of dealing with issues in a confident and decisive manner will prevent the formation of this impression. However, the apparent danger of becoming dogmatic and domineering due to overconfidence must be avoided, since the patient must never be made to feel inferior. The restoration of self-confidence in the patient will eliminate at least some of the disturbing mental conflicts.³⁶

In the narrower fields of human endeavour, it is relatively easy to name desired qualities requisite for success. However, in dentistry, a whole gamut of virtues is required for the establishment of harmonious relations with patients. Nevertheless, some basic character traits required for the development of sound relations should be recognized.³⁸

Because of the dominant and au-

thoritative position dentists hold in the office, they cannot afford to lose a proper sense of perspective. The attitude of tolerance must be maintained.³¹ Irrespective of his views, status, etc., the patient is a human being and must be respected as such.

Alloofness may be interpreted by the patient as a lack of sympathy.³⁹ When this attitude is countered with friendliness and the required degree of sympathy, understanding can be established.

Another character trait of great significance is honesty. No characteristic will fail under the test of time as quickly as dishonesty.⁴ Honesty gives rise to a strong feeling of faith with which comes trust. Thus a basis for confidence can be established.

In all human relations, patience is required.⁴⁰ The degree of patience will depend upon the emotional stability of the dentist. In dental practice, many occasions will cause annoyance to the dentist. Regardless of inner conflict, no emotions should be displayed to the patient, since patient's respect for the dentist will be diminished. Diplomacy and an attitude of amiability are essential.⁴

There is a continual need for external adjustment to the personalities of a succession of patients. The art of compatibility becomes a useful psychological mechanism for this purpose. It becomes necessary to recognize a patient's mood upon his visit and, as nearly as possible, but always within reason, to conform to it.⁴ In this manner, an endeavour is made to overcome any mental resistance that may be present in patient's mind.

Attitudes and character traits are acquired. The type of attitudes assumed and displayed will be directly related to the ease with which inter-personal relationship becomes established.

INFLUENCING DENTAL PATIENTS

In the dental profession, we are constantly faced with situations which require the exercising of our persua-

sive powers to direct the course of action of our patients.

Emotion rather than intellect determines people's beliefs³⁷ and hence, changing their beliefs requires an arousal of emotion. Therefore, speech and habits become powerful directing influences on human behaviour.¹⁴ In general, people are influenced in many of their decisions by the manner of speech of the person to whom they are listening. They are inclined to reject the ideas of one who speaks hesitatingly, incoherently, and in a colourless voice. But, a confident and emphatic presentation predisposes the listener to accept the ideas offered.

To influence, we must convey the impression with feeling and belief.⁴¹ Simple, concrete words help to visualize the case and even "clothe it in images of action."³⁷ In this manner, we can effectively impress the patient with the need for treatment and enlist his cooperation. Patients become suspicious if the presentation is made in words which they fail to understand.

The desire for a feeling of personal worth has a tremendous influence on human behaviour.⁴¹ A recognition of this fundamental factor constitutes a major factor in influencing people. Every human being wishes to be important, to "strive for a place in the sun." We should endeavour to present the idea that the patient is the most important one in our practice. Ideally, they all are. It would be great human progress if they were as important from a practical viewpoint.

In order to gain success in our personal relationship with patients, we must develop a genuine interest in them. People are the most interesting part of our world and it should not be difficult to be interested in them. Without a sincere interest in people it becomes impossible to influence them. A genuine interest in others means that we forget ourselves for the time being. We must show interest in what our patients do, think and feel. Effective personal relations are based

on mutual liking and respect, both of which stem from interest.

It is not only in the interests of their patients that dentists require some knowledge of psychology. The fact must be faced that dentists themselves are not immune to unfavourable behaviour patterns.¹¹ Since they are human, they may also have personality difficulties, such as emotional disturbances and maladjustments. It would be worthy to consider some of the personality difficulties with which we are faced in dental practice.

Whenever an individual is faced with a situation with which he feels incompetent to deal satisfactorily, an emotion arises.¹ Thus, emotions are the result of an individual's felt "inadequacy." The intensity of this emotion depends on the degree of felt inadequacy.⁷ If, in daily practice, life flowed along smoothly, and for every problem which arose, the dentist would have a solution at his disposal, then no emotion would occur. But, we are constantly faced with demands, doubts, complaints and accusations. For all these we do not possess an acquired adjustive behaviour pattern. Thus, emotional conflicts arise from worry, anxiety, and failure.

Though emotions are of short duration,² they are intense, and a constant emotional upset has a detrimental effect on our physical and mental well-being. The emotion occupies the centre of the mind and thrusts out other material. Physiological disturbances occur, since the bodily reserves are called up to increase efficiency and overcome the obstacle.²

"Emotional disturbances are an enemy of efficiency."² This is due to the fact that reason and emotion do not mix, but maintain a balance; when one dominates, the other must submit. Thus, in an emotional disturbance, reasoned, intelligent and efficient actions are not possible. It is the control of emotion which determines whether an act is intelligent or not.

As dentists, we cannot allow our

emotions to stand in the way of happiness and efficiency. Emotions are subject to change and thus they can be modified by practice. However, it is first necessary to know our emotional habits before we make a determined effort to practise better emotional expression.

WORRY

This is one of the most harmful emotional habits an individual can form. Worry is a mild form of fear which is characteristic of modern life.¹ Worry is a feeling of insecurity, of inadequacy and personal inability to cope with a situation.¹³ Due to the tension produced, the individual becomes hypersensitive and irritable. This increases immensely the strain on everyday life. Overstrain may develop into a neurosis.⁴¹

Psychologically, the greatest disadvantage of this emotion to mental health is that it handicaps intelligence.³⁷ Worry limits the efficiency of the mind by fixing attention on feared events, thus excluding other ideas. It causes an individual to make foolish adjustments when he is emotionally aroused.² One who has the habit of worrying can always find occasion for anxiety.

Worry is a harmful emotional attitude which must be removed. Good adjustment habits can largely prevent it. A good personality is made up of effective adjustive habits. Good physical health is a prerequisite to a good personality.⁴⁰

Myers¹¹ points out concisely that "Emotional habits constitute the essential foundations of good mental health. The characteristics of a person which are important in determining his success, his happiness, and his health, are the emotional characteristics. The ultimate measure of mental health is the ease and smoothness with which we get along with other people."

CONCLUSION AND SUMMARY

We cannot fail to realize the value of some of the fundamentals of psy-

chology essential to our profession. A knowledge of psychology can give an understanding of the manner of conduct of our patients. This understanding can improve the ability to influence their behaviour, and in this manner help to establish a more sound interpersonal relationship.

At no time can we fail in the important task of getting along with people. "Learning to get along with people means learning to like them; learning to like them means learning to understand them."¹¹ Understanding is, unfortunately, attained slowly and by degrees and it cannot be thrust upon one indifferent to its reception. The ability to get along with people is not a hereditary characteristic, as popularly conceived. It is an ability which must be deliberately developed through study and practice.

There cannot be advocated a stereotyped pattern for patient management because of the complexity and variability of human nature. Nevertheless, paying attention to success or failure of the methods used to influence the behaviour of patients of different types will lead to the development of this proficiency.

Personality maladjustments are the cause of failure in any profession. Therefore, it is important to realize that the mental and emotional characteristics are no less significant in determining the professional success of the dentist than are the aspects of scientific knowledge and good technical skills.

It is hoped that this paper does not present a theoretical treatise with no practical applications. There is no field in human activity where psychological principles cannot be applied. To make the profession of dentistry pleasant, productive, and stimulating, an understanding of the basic nature of our patients becomes essential. Without this understanding we cannot render our patients the full measure of service that our professional obligations demand. There is one basic reward we

seek; namely, a healthier and happier patient to make a healthier and happier world.

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ANOTHER RULE—STILL GOLDEN

The great Rabbi Hillel was visited by some wise man who asked if he could give the essence of Law and the Prophets in the length of time he could stand on one foot.

"Certainly," replied the rabbi. Drawing up one foot, he said:

"That which is hateful to thee, do not thou that to another. All the rest is commentary."

*"Slumber not in the tents of your fathers,
The world is advancing. Advance with it."*

—Mazzini.

Functions of a Department of Dental Health in the Dental School

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THE World Health Organization has defined health in a very positive way as follows:—"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Public health has been stated as "the art and science of preventing disease, prolonging life and promoting physical and mental efficiency through an organized community effort."

Dentistry, as a health service, has a positive contribution to make. It was the late Dean Rice of Tufts Dental School who said that "the public is justified in inferring that the possessor of a degree in dentistry has been trained for leadership in matters relating to public health." The doctorate degree itself suggests that every graduate dentist has been trained as a "teacher." This in itself is a challenge to dental education.

What then can dentistry do as a member of the health professions to make her greatest contribution toward this "state of complete physical, mental and social well-being," known as health?

It seems that the aims or objectives to fulfil this public obligation lead us into two specific channels; firstly, the education of the dentist to fulfil a professional obligation to the public health; secondly, the education of the public to know and appreciate the value of dental health and the services available for promoting and maintaining positive dental health.

The first point, namely, "the education of the dentist to fulfil his professional obligation to the public health," can be considered under the two headings; dental undergraduate training

and instruction for graduates in dentistry. I will also review the dental public health instruction to ancillary dental personnel as well as to those health workers closely associated with dental health programs. Reference will be made here to a program of instruction carried out under the Department of Dental Public Health at the Faculty of Dentistry at the University of Toronto.

Experience gained in field work in Dental Public Health has indicated that one of the greatest obstacles to an effective dental public health program is the type of dental service which is available within the community to meet the public need most effectively. It is no problem for public health workers to convince the parents of pre-school and school children that early dental care is needed for their children. In many instances they go prepared to pay for services, considered preventive in nature, only to receive the impression that the service is not necessary.

This existing condition can be explained and there are probably two fundamental reasons for it: firstly, the apparent lack of basic dental knowledge and secondly, non-acceptance of a professional obligation to provide modern dental care for children.

It can, therefore, be considered most desirable to influence the undergraduate during his training that he may acquire the basic knowledge and skills necessary, and understand the application of the knowledge in the practice of his profession as a dental physician.

At the time of the establishment of a Department of Dental Public Health, a conference of heads of departments

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at the Faculty of Dentistry was called to discuss the prime objectives of our dental teaching as it applies to the public health. It was pointed out at this conference that the health of our patient should be our prime objective, and that each department should take stock of the teaching at undergraduate and graduate levels, in the light of this objective of positive dental health. The pursuit of research studies, by an interdepartment cooperative effort to clear up controversial problems, was also stressed. A request was made, to set forth authoritative dental information, which each department would desire to be used for dentist or public consumption and to consider ways of keeping this information up-to-date for public health workers. The teaching of statistical procedures in the dental curriculum, and the special training of a dentist in this field, was strongly recommended, with the hope of having someone on the staff available for teaching statistical procedures and for counselling those preparing research projects. It was also suggested that a cooperative effort between public health dentists and departments of the Faculty of Dentistry could be arranged to obtain statistical material for any departmental research study. The use of dental health educational material was recommended as a means of orienting the thinking of the members of the predental and first dental years towards dental health, as well as providing material for the teaching of speech and the writing of essays.

A study of the dental curriculum has been in progress beginning with the first dental year, placing emphasis toward more time being given to basic sciences and their application to a more modern concept of preventive practice. An attempt is also being made to orient the thinking of the student, now beginning his training to understand more clearly the application of knowledge in the basic sciences

as it will apply to his later experience of dental practice.

It is our belief that one of the most important functions of a department of Dental Public Health is to interpret the public health problem and try to correlate every effort in curriculum planning and training toward equipping the graduating dentist with knowledge necessary for him to render a positive dental health service to his community. To do this effectively, his contribution must be more than just that of dental care. He must be a health educator, a teacher, and a counsellor in dental health matters.

UNDERGRADUATE EDUCATION

Dental public health lectures in the fourth dental year begin early in the fall term. The first of the twelve hours allotted to lectures is given over to orientation. An opportunity in the 1951-52 session has been given to this department to meet the first dental year for this purpose. It is necessary to continue this orientation of the graduating dentist into his role, as an important partner in the health services in his community.

In the lectures a review is made of the history of preventive medicine and the close association of dentistry as progress was made throughout the past. Upon being brought up-to-date on movements influencing better health of the public, a survey is made of the early organization of dentistry as a profession and the contribution of those who have pioneered for higher standards of dental education and more knowledge resulting in better dental health for the public. Present-day legislation, program planning and organization in Canada is discussed with the program of dental public health which has evolved in Ontario, considered in more detail. The place of the practitioner in a successful program is emphasized and his obligation as a professional citizen stressed as well as the obligations and opportunities which are his in contributing to the public health service. The qualifi-

cations, training, and duties of the dental health officer are discussed as well as the types of dental service he will expect of the local practising dentist. An attempt is made to present the public dental health problem and the important role the dentist plays in solving the problem by accepting his share of the dental care of the child population. Detailed instruction is given in local voluntary organization and the dentist's role as an active member and leader in a lay organization in his community, is emphasized. The importance of good public relations as a dentist or as a dental society member in the community is stressed, as it applies to the organized community dental health program. A strong bid is made for the local dentist to accept every opportunity to speak before lay groups and information is given respecting materials available to help him. The use of different media for presenting public health material is described and principles and methods of presentation and the use of audio-visual aids are discussed. During this lecture series, two lectures on Venereal Disease Control, and one on Public Health Nursing, provide information in these respective fields, as it may relate to public health in the community. The lecturers are heads of their respective departments and this association has proven very worthwhile.

The health educational phase of the training of the dental undergraduate was instituted in the Faculty of Dentistry under the auspices of the Ontario Division of the Canadian Red Cross Society in 1948. Child health seminars were organized for the purpose of demonstrating the possibilities of individual education in dental health. At these seminars a mother attends with her child, for instruction and counselling in matters relating to the child's dental health. The children used are usually under one year of age. Students, in groups of eight, attend these seminars and are first

instructed as to the possibilities of this type of education and its planning. Later they listen to two such interviews by the instructor during each seminar. The Mothercraft Society have very graciously cooperated in providing patients for this program of instruction. In 1951-52 session, these demonstrations are being given by the department in Child Health Centres in a county health unit. Emphasis is made on early instruction of the mother respecting her part in promoting and maintaining positive dental health for her child. During these teaching seminars, the possibilities of this type of instruction is demonstrated as it may be planned in a private dental office among pre-school and school age children. Emphasis is placed on the necessity of planning the presentation of the material to be given at the appointment intervals that a mother may be bringing the child to the office. Points stressed to the students are: to cover only one point at a time; to use visual aids to make it more meaningful; it must not be too time-consuming, but it can be done in the business office when dismissing the patient and the mother and child are there alone with the dentist; it makes for an intelligent cooperation by the parents; it places more value, in the parent's mind, respecting the preventive services rendered. Short presentations of not more than three minute duration were prepared and mimeographed and presented to each student. Some of the subjects suggested and used at these seminars include:

A "The Life Cycle of a Tooth." The early beginning of tooth development; cells detailed for special work; the tooth development at birth; the importance of proper nutrition; the developmental period of permanent teeth; eruption into the mouth. At every opportunity, application is directed toward the mother's own child.

B "Why Maintain Deciduous or Pri-

mary Teeth?" The important functions of primary teeth are described, applying them always to the health and appearance, and to the growth and development of the teeth and jaws of her child. This talk can lead often to a discussion of the premature loss of the primary teeth by neglect and the preventive measures necessary (space maintenance) to maintain the integrity of the arches, and the alignment of teeth.

C "Habits and Their Relationship to Your Child's Dental Health." Habits are classified and described under the following categories: sucking; biting; tongue thrusting; breathing and postural. Stress is laid on the disturbance in the function of teeth; health and appearance; economics of prevention; general health (mouth breathing and upper respiratory infections) with personal application, if any are noted in the child.

D "Parents' Responsibility for Oral Hygiene and Home Care." Cooperation with the dentist is stressed; dietary habits; nutrition; tooth-brushing supervision; instruction in brushing; importance of timing in brushing; direction by the parent in the child's use of spending money; treats; regular dental care.

E "Food Habits as They Relate to Dental Health." The reasons are given for the desired reduction of sweet foods: caries and sugar is discussed; economics of substituting protective foods; necessary foods in tooth development; saliva counts are explained with indications of the value of a week's diet record for purposes of assessment, to improve the child's diet for reasons of dental health.

These are only a few of the subjects which may be used in patient education. Often a question by the mother may indicate the subject to pursue.

The value of visual aids is also demonstrated by use during the conference with the mother. Glossy print enlargements about 3¼" x 4¼" mounted two

to a card serve best for this purpose and are inexpensive. The cards used are grey Bristol board, 11" x 8". Facilities for obtaining these were made for the students, with information for enlarging and mounting the prints themselves, if any student happens to be a photography hobbyist. The Book Room of the University of Toronto Press now carries these visual aid kits. The use of colour slides in a daylight viewer is also demonstrated to show the values obtained in certain instruction by the use of colour.

In order to apply this knowledge in patient education and to become adept at its use, arrangements are being made for the student to carry out individual patient education, at which time the conference will be tape recorded. These tape records will be played back at a student conference and the instructor will give assistance to improving both the material used and the presentation.

To familiarize the graduating student with audio-visual equipment which he may be called upon to use in presenting dental health information to lay audiences, instruction is given in the effective use and the operation of the sound movie projector and other audio or visual aid equipment.

To emphasize the role of the practising dentist in public health and the value of education in the preventive approach to public health problems, the final year dental student is being taken during the 1951-52 session on a field trip to a county Health Unit to observe the public health program being carried out in the Child Health Centres. Three students at a time accompany the instructor and observe for two hours at these centres, where medical, nursing and dental health education, and counselling are being carried out.

A service, rendered to graduating students, has been set up within the department, to assist the young graduate in the choice of a place of prac-

tise. We believe that the unequal distribution of dentists throughout the province is a public health problem, and that some guidance can be given to improve this situation and provide a service to the student.

A survey of the dentists of Ontario was made according to counties, cities, and towns. Dentists were listed according to the number of years in practice in the community. An attempt was made, by listing the local retail sales, the number of people employed and the average wage earned, to present some aspects of the prosperity enjoyed in that community. By being able to consult this survey material and by viewing the location on a wall map and finding the number of dentists shown in practice there, it is believed that more recent graduates have become interested in settling in smaller centres, where the public need is often the greatest. At least it seems that such an information service should come from this department where the interest in dental health is the prime objective. An association, as field work secretary (part-time) of the Dental Public Health Committee of the Ontario Dental Association, has kept the head of the dental public health department, at the Faculty of Dentistry, in close touch with the public dental needs in smaller communities in the province. This knowledge has proven to be valuable in counselling the graduating dental student on a choice of location to practise. During field trips around the province, calls have been made upon recent graduates to show our interest in their welfare which seems to be greatly appreciated. Time permitting, it is hoped to be able to do more of this follow-up service among recent graduates, in the near future.

ASSOCIATED UNDERGRADUATE EDUCATION DENTAL NURSING

In closely associated undergraduate training, instruction is given by this department in Dental Public Health.

Six hours of lectures are given to

the dental nursing group. Five of these are lectures on dental public health and one by the associate director of the University School of Nursing, on the functions of the public health nurse in the community health program.

In the lectures in dental public health an attempt is made to stimulate the nurse's interest in the dental problems in public health. The positive approach to dental health is stressed and the requirements of the nurse employed in private practice and in public health are discussed. Opportunities for her participation in dental health education under the dentist's direction are considered and the uses of visual aid material for instruction are demonstrated. Instruction and exercises in the use of the public health dental chart are given and a discussion of conditions of employment, special requirements, duties and opportunities for service in public health, is presented.

Field teaching seminars are organized when small groups of dental nursing students visit a health unit dental service where a graduate dental nurse is employed. Here they see the program in operation and have an opportunity to see the dental nurse at work as well as being able to ask questions of the dentist or of the nurse, on any phase of the work in a public health service.

DENTAL HYGIENE

The first year of the dental hygienist training at the Faculty of Dentistry, University of Toronto, includes twenty-six hours of lectures in Dental Public Health. The first four hours are given over to an orientation of the student, respecting the field of dental hygiene, and the scope of function of the dental hygienist in the office of the private practitioner and under the dental health officer in a public health program. A review of the proposed curriculum is also discussed with the implications of the subjects covered in respect to the services rendered by a

dental hygienist. Stress is laid upon the dental hygienist being one important member of a dental health team whose services in a dental practitioner's office can help provide regular dental care to many more people, by relieving the dentist of time-consuming procedures which can be delegated to her. This can include under the dentist's direction: the recall service; radiographic examination; dental prophylaxis and polishing of fillings; oral hygiene instruction; topical fluoride application; and patient education. In the public health field, she may be delegated to carry out dental health education at child health conferences, or by individual or classroom instruction. In large health units she may assist the dental health officer with the annual dental examinations, referring needy cases she may see to him for special consideration. Other duties which may be assigned by the dental health officer can include: dental prophylactic services in schools, institutions, industrial plants, accompanied by a dental health educational program. She may assist on teams giving a topical fluoride service to school children.

A review is made in the lectures on the dental hygiene movement and the historical background of dentistry is considered in the progress of public health. Present dental conditions found in public health work are considered and the problem is discussed from the standpoint of present dental knowledge. The work of voluntary groups in program planning and the place of dental health education in an effective program, is emphasized. Standardized methods used in public health are described and instruction is given in the examination and recording of dental conditions. Exercises in charting are given in the first year seminar instruction with the child patient available in the chair, so that the conditions being charted can be viewed

in the mouth. In the second year, it is planned to take this group on field trips where they may actually see this work being carried out and have an opportunity to do some of the examinations under the instructor's guidance. About seventy-five hours of instruction are given in dental public health in the second year. Instruction is given in the principles and methods of health education and in the use of visual and audio-visual aids in patient education. This part of the dental hygienist's duties, as a health educator is stressed throughout the dental public health lectures. The dental hygienist has been defined as "a health educator who uses the dental prophylactic treatment as a medium of instruction and service. As she serves the private patient through prophylaxis, as she serves groups of children in schools or adults in industry, she teaches accepted dental health procedures".*

PHYSICAL AND HEALTH EDUCATION

In the School of Physical and Health Education at the University of Toronto, four hours of lectures on Dental Public Health are given to the second year students. An attempt is made, in an inadequate number of hours available, to present basic dental information, in order that physical instructors and health educators may have more appreciation for dental health and give oral hygiene and preventive dental care a place in a physical fitness program.

GRADUATE EDUCATION

DIPLOMA IN DENTAL PUBLIC HEALTH

In 1945 a one-year course leading to a diploma in dental public health was established at the University of Toronto. The purpose of such a course was to train graduate dentists in the principles and practices of public health procedures which may be applied to the dental health problems in the community. With farsighted vi-

*From a brief submitted by the American Dental Hygienists' Association to a conference called by the American Association of Dental Schools on the training of Dental Hygienists, June 30, 1949, in Chicago.

sion, those who planned this course, gained for dentistry, a place alongside other health workers by planning a course, through the cooperation of the School of Hygiene, which closely parallels that of the graduate medical candidate. Two half days each week only, were allotted to instruction in the dental building. The department of Dental Public Health at the Faculty of Dentistry is responsible for the course in Dental Public Health and the head of the department acts as liaison officer with the School of Hygiene in planning the program. In July 1948 the present head of this department took over this duty and certain changes have been made in the curriculum to fit in with an expanding graduate program of education within the Faculty. Subjects given under the Faculty of Dentistry include: Dental Public Health Administration, 12 hours; Paediatrics, 10 hours; Dental Bibliography, 2 hours; Medicine, 30 hours; Radiographic Interpretation, 18 hours lectures—3 hours seminars; seminars in Public Health Dentistry include special concentrated instruction in the following subjects: Psychology, 5 hours; Genetics, 6 hours; Preventive Dentistry, 10 hours lectures, 9 hours laboratory seminars; Pedodontics, 6 hours; Orthodontics, 10 hours; Periodontics, 10 hours.

The lectures and laboratory periods at the School of Hygiene are in association with the medical group and for certain subjects are with Public Health Engineering, Veterinarian, Industrial Hygiene and Hospital Administration groups. The subjects covered include: Bacteriology; Immunology, Serology and Virus Infections; Epidemiology and Biometrics; Physiological Hygiene; Public Health Chemistry; Public Health Nutrition; Public Health Sanitation; Public Health Administration; Public Health Education and Medical Care. Field trips are made to industrial plants, water filtration and sewage disposal plants, institutions, health units, food processing plants and other associated places to

see the application of information considered in the lectures.

Ten hours of instruction are now provided by the department of dental public health to the combined medical and dental groups at the School of Hygiene. Subjects covered by members of the staff of the Faculty of Dentistry include: A review of the Curriculum of Present Day Dental Schools; An Evaluation of Aetiological Factors Relating to Dental Caries; Newer Methods in Caries Prevention; Public Health Aspects of Periodontal Disease; Dental Records in a Health Unit; Preventive Aspects of Private Practice; Problems Related to Adequate Dental Care; Practice Economics Related to Dental Care; Organization and Planning in Ontario to Improve Dental Public Health; Continuing Education and Dental Research; and a seminar is arranged on organization, administration and program procedure in a Health Unit or municipal Department of Health.

The close association of the dentists with other health workers during the course makes for a greater mutual understanding of each other's problems. This association during the training, gives the dentist knowledge which can be applied to his own field and provides better understanding through a background of knowledge of other health fields, so that he can more intelligently take his place as a member of the health team.

PUBLIC HEALTH NURSING

The interest in basic dental information as part of the knowledge necessary in the training of nurses has been very evident. No group of health workers are more closely associated with the health problems of the family than the public health nurse. Those in this work have expressed their opinion of the need for more dental instruction in their training. Those who plan the graduate training in public health nursing have realized this and have allotted six hours of lectures and twenty hours in field trips

for this purpose. The lectures are arranged by the Department of Dental Public Health and are given at the University School of Nursing by members of the Dental Faculty staff. During the lectures a review is given of the dental curriculum and the application of knowledge taught in relationship to the place which dentistry takes in matters relating to health. The present state of dental conditions among the population and particularly among children is discussed. The progress of dental health education and the need for a preventive approach to the problem is pointed out. Three lectures are given over to basic dental information which cover a review of the life cycle of a tooth; interruptions in development; hereditary factors; the normal tooth structure; eruption and normal arch form; disturbances in eruption; functions of primary teeth; maintenance of dental health by home care; early dental care; oral hygiene; dietary factors; maintenance programs through public and private educational efforts, such as child health seminars; pre-school and school age dental programs, and through regular patient recall service for dental care. The aetiology of oral diseases and the variations from normal growth and development are considered. Preventive services which can be rendered by the dentist are discussed and a consideration is given to what a public health nurse can do, in her daily contacts in the home, to foster better dental health in the community. A challenge is left with the nurse to consider dental health an integral part of the health program.

The field trips arranged for public health nurses consist of conducted tours of the dental building. Groups of eight students are shown through departments where they may actually see the work of undergraduate dental training in progress. By prearrangement in departments, certain material is made available in order that they may understand better what has been discussed in the lectures. This ap-

plies for example to such departments as Dental Histology, where sections of the developing tooth germ at different stages are displayed under microscopes, with a short explanatory talk given by the head of the department. Preclinical laboratories which contribute to these demonstrations include: Preventive Dentistry, Oral Pathology, Dental Histology and Operative Dentistry. Clinical Departments in Oral Diagnosis, Radiology, Pedodontics, Orthodontics, Cephalometrics, Periodontics, and Graduate Education are visited where the preventive aspects of the student's training are emphasized. Patients are used in some departments to show the public health nurse the types of service being rendered. The Oral Surgery Department, Dental Public Health Department, Photographic Department, and the Library are visited. The diagnostic services available to the practising dentist are also pointed out while visiting different departments.

The field trips to the dental building have been extended, at the request of the School of Nursing, to include the degree course students as well as those in public health nursing. The reaction of the students to this field trip experience has been one of great interest on their part and it is believed it constitutes good public relations among other closely associated professional health workers.

POSTGRADUATE EDUCATION

Each year since the session of 1948-49, the Department of Dental Public Health has held Dental Public Health Conferences under the Continuation Course Program at the Faculty of Dentistry. The object of these short intensive courses was to provide instruction and knowledge in subjects related to dental public health. Primarily, they were planned for those actively engaged in dental public health work who may be employed either full or part-time. Attendance has been beyond fondest expectation. Forty-six

dentists arrived for the first conference lending a problem of physical accommodation at the Faculty of Dentistry. Possibly the active participation of public health dentists in the conference and the wide interest in the problems involved, have brought such response in the conference attendance. Staff members of the Faculty of Dentistry, School of Hygiene, Ontario College of Education, Hospital for Sick Children and Departments of Health and Health Units have contributed to the program of instruction. Guest essayists and seminarians have also been arranged and public health dentists have contributed by presiding at the discussion forums as well as by contributing to the conference program.

The subjects covered have included: program planning, dental health records, evaluation of programs, application of recent research to dental public health procedure, nutrition and dietary problems, principles in teaching, teaching methods, visual education, statistical procedure and the study of many dental problems having a public health significance.

SUMMARY.

Consideration has been given to the varied functions of a department of dental public health in a dental school. There are five major fields of influence.

1. Undergraduate dental education.
2. Graduate dental education.
3. Postgraduate dental education.
4. Education of ancillary dental personnel.
5. Education of associated health workers.

Probably the most effective contribution can be made through the training of the dental undergraduate. It is here where skills in preventive practice can be emphasized, where attitudes toward dentistry as a health service can be instilled and where opportunities and obligations, as a professional citizen of the community, can be taught. This teaching stresses not only the acceptance of responsibility for providing a positive dental health service, but a responsibility as a health educator, a teacher and a counsellor in matters relating to the dental health of the public.

230 College St.

The professional man is distinguished by several marked characteristics, among which I would name six. (1) He has acquired a specialized intellectual technique which enables him to perform a particular service. (2) He uses independent judgment in his service and assumes large personal responsibility for it. (3) He associates with others engaged in the same type of service; from them he draws inspiration and acquires new ways of performing his services; to them he freely contributes his ideas, his discoveries, and his inventions. (4) From an intellectual point of view, he is considerably above the average of men. (5) His actions tend to be regulated in the public interest either through his own group, or through the State, or through both. (6) And finally he is a "dedicated" man. He has been set apart to render to his fellow men a special service. He has been thoroughly indoctrinated in his responsibility to those who commit their problems to him. In him is placed a great trust to act always in the interest of those he serves and for the common good.—Lloyd E. Blauch, Ph.D. in Jour. Am. College of Dentists.

"My father taught me to be a gentleman, honest, dependable, considerate of others, humble, friendly and sympathetic. My mother taught me to respect others, to be methodical, conservative, industrious, forward looking, and, above all, never to be satisfied with things as they are if they can be improved."—The late Dean Wright of the N.Y. Univ. College of Dentistry.

Need for Scholarships in Dentistry

What About Your Will?

by A. M. HORD, D.D.S., Toronto, Ontario

Feeling that many dentists if aware of prevailing conditions would consider contributing to the future of dentistry, the Endowments Procurement Committee of the Faculty of Dentistry, University of Toronto, has prepared a series of short articles relative to the need and placement of awards in dental schools in Canada.—A. M. Hord, D.D.S.

CONSIDER your estate now. Should dentistry receive some return for the years of good fortune it has been your lot to enjoy?

Authorities recommend that persons making wills involving large estates adjust them annually to meet the ever changing conditions. Wills of individuals involving smaller estates should be reviewed and changed every five years. Time and effort has been expended in accumulating an estate; due thought and consideration therefore should be given to the disposition of the same.

Universities and faculties are so constituted that donations, whether they be large or small, given during a lifetime or by will, may be utilized for the furtherance of education and the betterment of mankind from new buildings and research to awards for academic standing, always giving due consideration to the wishes of the donor.

Each year worthy students find it necessary for financial reasons to interrupt or discontinue their studies; other students have proven financial strain has affected their academic and scholastic efforts. For this reason loan funds, bursaries, scholarships, fellowships and prizes have in the past been of great assistance. Many more are needed, particularly at this time, due to the decreased value of the dollar and the increased cost of books,

instruments, fees and living.

Great are the possibilities relative to the placement of any donation, whether given during a lifetime or by will. Commemorating a name has been the most popular in the past.

Many within the profession, because it has not been drawn to their attention, have not realized or given thought to the possible benefits to students, teachers and the public through stimulus to the students in achievement and improved academic attainment. For example, \$500.00 would provide \$100.00 annually for the five years of the course; \$450.00 would pay the fees for one year's tuition.

Deans or members of scholarship committees of any faculty in any university will willingly give assistance and direction for the placement of gifts.

Special exemptions are granted under the income tax act and the succession duty acts in respect of gifts made to educational institutions.

Simple draft clause for a will:

I give and bequeath to the University of _____, the sum of \$_____ which sum is to be used for such purposes in connection with the work of the Faculty of Dentistry. (Wishes of the donor specified here) _____. It is my desire that the paid fund be known as _____.

Now is the time to change your will.

"The free enterprise, or capitalistic, system is a system of production, investment and consumption under which private individuals and business firms, by their own initiative and on their own responsibility, combine the community's labour skills, managerial skills and capital, to produce the bulk of the goods and services men want."

The Forum

PLEDGED PATIENTS

Condensed from Editorial of N.Y. Jour. of Dentistry, July 1952

The family dentist may soon find himself left without families, should dentistry fail to take full cognizance of the present trend toward corporate practice. While much attention and vociferous opposition have been given to government attempts to socialize the health professions including dentistry, the efforts of industry, labour unions and other entrepreneurs to enter the practice of dentistry have gone largely unchallenged. There are many such practices now in existence. These operate without the consent, supervision, and frequently without the knowledge, of organized dentistry.

As between taking a job to perform dental service under lay auspices and in the private employ of insurance companies, labour unions, department stores and what is commonly referred to as "big business," it seems to us, that the practising dentist would in most cases do much better to choose government employment. Dentists in the United States Public Health Service are not in the high income brackets. They, nevertheless, know that in spite of any shortcomings, they are in a service devoted to the public health and that no one is exploiting them for private gain.

With the spread of the corporate practice of dentistry, the neighbourhood dentist will soon find that most of his present and potential patients are "pledged patients." Pledged by their employer or labour union to obtain their dental care from a dental clinic or from a private practitioner who is

not of their own choosing and whose competency has been judged by laymen.

Dentistry cannot put itself in the position of opposing a trend. The duty of the dental profession at this time is to obtain basic facts relative to the practice of dentistry on a population basis; to make these facts known to all concerned, and to seek legislation for the protection of the dental health of the public against those who would exploit not only the dentist but dental disease as it exists in the population.

Dentistry must recognize trends leading to the more widespread distribution of dental care and, moreover, should welcome such trends. There are a number of basic principles to be established for the protection of the public and to ensure the continued growth of dentistry as a health profession. The primary concern of dentistry, as we see it, is not who pays the fee, whether the patient or an agency acting for the patient. The important thing is that the intermediary should not be allowed to practise dentistry for profit. Such practice would drive the cost of dental care upward while at the same time tend to exploit the dentist. Whether dentistry is practised in groups, as in clinics, or singly as in the private office should be decided on the basis of suitability for the patient, dentist and community.

Factual information is urgently needed on salaries and conditions under which dental service can be successfully performed on a population basis.

It is not enough to do good, one must do it in the right way.—John Viscount Morley

ANNOUNCEMENTS

● **EASTERN ONTARIO DENTAL ASSOCIATION CONVENTION** will be held in Chateau Laurier Hotel, Ottawa, September 21, 22 and 23.

● **DENTAL ALUMNI, UNIVERSITY OF TORONTO:** Members are requested to remember and plan to attend the Annual Dinner, entertainment and election of officers at the Royal York Hotel on Friday evening, October 17 at 6:30. This meeting is for the ladies too. Further details will be in the mail at an early date.

● The **GEORGE W. GRIEVE MEMORIAL LECTURE** will be given by Dr. Spencer Atkinson of Los Angeles, California, in Convocation Hall, University of Toronto on Monday evening, November 10.

Dr. Atkinson's subject will be extremely interesting and all dentists are cordially invited to attend.

● Two hundred dentists, including top dental-medical researchers will be in attendance at the **NINTH ANNUAL SEMINAR FOR THE STUDY AND PRACTICE OF DENTAL MEDICINE** set for the Desert Inn, Palm Springs, California, October 26-30.

● **THE 21ST ANNUAL POSTGRADUATE CLINIC OF THE DISTRICT OF COLUMBIA DENTAL SOCIETY** will be held March 15-18, 1953, at the Shoreham Hotel, Washington, D.C.

Twenty-Eighth Annual Fall Clinic of The Montreal Dental Club

October 23-25, 1952, Mount Royal Hotel

ESSAYISTS: **DR. H. B. G. ROBINSON**, Assoc. Dean, College of Dentistry, Ohio State University, Columbus, Ohio.
SUBJECT: "Oral Diagnosis."

DR. G. NIKIFORUK, Assoc. Professor of Pedodontics, Faculty of Dentistry, University of Toronto.
SUBJECT: "Etiology and Prevention of Dental Caries."

DR. HARRY ALBERT, Attending Chief of Endodontia Dept., Bronx Hospital, New York.
SUBJECT: "Modern Concepts in Endodontia."

CLINICIANS: **DR. DONALD A. KERR**, School of Dentistry, University of Michigan, Professor of Oral Pathology and Periodontia.
SUBJECT: "Differential Diagnosis of Periodontal Disease."

COMMANDER PAUL A. MOORE, Head of Operative Dentistry Division, U.S. Naval Dental School, Bethesda, Md.
SUBJECT: "Improved Cavity Preparation Employing Increased Rotary Speeds."

DR. I. C. SCHOONOVER, Chief of the Dental Research Laboratory, Bureau of Standards, Washington, D.C.
SUBJECT: "Self-Curing Resins in Dentistry."

DR. HARRY ALBERT, Attending Chief of Endodontia Dept., Bronx Hospital, New York.
SUBJECT: "A One Visit Endodontia Procedure."

DR. JAMES McCUTCHEON, Assoc. Professor, Prosthetic Dentistry, McGill University; and

DR. A. F. CAMERON, Lecturer in Dentistry, McGill University, Montreal, Que.
SUBJECT: "Partial Denture Prosthesis."

TABLE CLINICS:

OTHER EVENTS: Luncheons; Speakers; Dinner Dance; Ladies' Entertainment.

For further information

Dr. M. L. Donigan, 1414 Drummond St., Montreal, Que.

ANNOUNCEMENTS

● **THE 80th ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION** and the annual meetings of 38 related organizations will be held in the Public Auditorium, Cleveland, Ohio, October 20-24. More than 5,000 professional public health workers from all parts of the free world will attend.

● **THE AMERICAN ACADEMY OF DENTAL MEDICINE** will hold its annual Mid-Winter Meeting and Luncheon at the Hotel Statler in New York City on December 7, 1952, 12:30 P.M.

● **DIAGNOSIS AND ORAL SURGERY POSTGRADUATE COURSE FACULTY OF DENTISTRY, UNIVERSITE DE MONTREAL**, October 27-31, 1952. The course will present as guest lecturer and clinician, Dr. Edward V. Zegarelli, Associate Professor of Dentistry and Head of Department of Diagnosis and Oral Surgery, Columbia University, also Dr. Harry M. Seldin, author of text-book "Practical Anaesthesia for Dental and Oral Surgery"; former chief of the Oral Surgery Department, New York University; consultant at New York City Cancer Institute.

The following will also take part: Dr. Jean Fontaine, Dr. Antoine Raymond, Dr. Vincent Tremblay and Dr. Roland Gendron.

The following subjects will be discussed: Diagnosis, Diseases of Tongue, Endocrine Disturbances, Pain and Neuralgia, Anatomical Landmarks, Local Anaesthesia, Endodontia, Occlusion, Use of Elevators, Impactions, Temporo-mandibular Joint, Swelling about Face and Neck.

Fee \$75.00. Cheques to be made payable to Université de Montréal at par. Apply to the Dean, School of Dental Surgery, Université de Montréal, Montreal, P.Q.

● **CONTINUATION COURSES FOR GRADUATES IN DENTISTRY, UNIV. OF TORONTO, FACULTY OF DENTISTRY:** Dental Oral Surgery and Anaesthesia, Nov. 17-21; Pedodontics, Nov. 24-26; Periodontics, Jan. 19-23, 1953; Cephalometric Techniques (for specialists only) Jan. 26-28, 1953; Operative Dentistry, Feb. 16-20, 1953; Dental Radiology, Feb. 23-27, 1953; Dental Caries, Aetiology and Prevention, March 5-6, 1953; Endodontics, March 9-13, 1953; Orthodontics, April 13-17, 1953; Dental Oral Surgery and Anaesthesia, April 27-May 1, 1953; Periodontics, May 4-8, 1953. Enrolment will be limited in each course.

Instruction will be given through lectures, seminars and clinical demonstrations. Fees \$75.00 for five-day course, \$50.00 for three-day course and \$30.00 for two-day course.

Apply to Dean, Faculty of Dentistry, Univ. of Toronto, 230 College St., Toronto, Ont.

● **POSTGRADUATE COURSES AT THE SCHOOL OF DENTISTRY OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF SAN FRANCISCO 1952-1953:** A series of courses will be given on the following subjects: Tooth Guidance; Dentistry for Children; Air-brasive Technique; Cavity Preparation and Precision Casting; Endodontics; Local Anaesthesia and Preoperative-Postoperative Medication; Full Denture Prosthetics; Practical Administration; Periodontics.

For information apply to Director of Postgraduate Dental Education, College of Physicians and Surgeons School of Dentistry, 344 Fourteenth Street, San Francisco 3, Calif.

● **JEWISH SANITARIUM & HOSPITAL FOR CHRONIC DISEASES OFFERS DENTAL INTERNSHIP:** Applications are being received for an approved internship including Oral Diagnosis, Pedodontia, Endodontia, Periodontia, all phases of Restorative Dentistry, Oral Surgery, Exodontia and Dental Anaesthesiology and Roentgenology.

This internship extends from July 1, 1953 to June 30, 1954.

For further information contact Dr. Joseph J. Obst, East 49th Street and Rutland Road, Brooklyn 3, New York.

ANNUAL WINTER CLINIC, ACADEMY OF DENTISTRY, TORONTO

Royal York Hotel, Thursday, November 27

Limited Attendance Clinics:—

Dr. O. C. Applegate—Ann Arbor, Michigan.

Subject: "Complete Denture Prosthesis"

Dr. George A. Morgan—Toronto, Ontario.

Subject: "Oral Surgery"

Luncheon speaker—Joseph McCulley, Warden of Hart House, Univ. of Toronto.

Those living outside of Toronto may apply for detailed program to Dr. W. O. Nursey, 86 Bloor St. W., Toronto.



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Editorial

NATIONAL DENTAL EXAMINING BOARD BECOMES LAW

by DON W. GULLETT, D.D.S., Toronto, Ontario

The Bill establishing the National Dental Examining Board has been enacted, by the House of Commons, having previously passed through the Senate, and became law on June 19, 1952. Direction was given at the Annual Meeting to proceed in the work of organizing the new Board. Some time will be required to establish satisfactory by-laws and regulations for the operation of this body. It is anticipated that the first examinations under the jurisdiction of the new Board will be in the spring of 1954.

At the first meeting of the Canadian Dental Association held in Montreal, September 1902, the objective of setting up a National Examining Board was adopted. The outcome at that time was the establishment of the Dominion Dental Council, latterly known as the Dental Council of Canada. Most of the provinces accepted the certificate of this organization for registration purposes, but not all. Over the intervening years the objective of finding an acceptable formula for all provinces has remained as an objective.

The Council on Dental Education, Canadian Dental Association, has worked continuously for several years in an attempt to produce a satisfactory formula. The Council recognized early that preliminary basic work on dental education was necessary. Consequently during the last ten years the Council has made a detailed study of the curricula in the dental schools with recommendations for strengthening courses. Two years ago the Council, with the assistance of the Kellogg Foundation, began a survey of the dental schools in Canada. This survey is proceeding at the present time and is proposed to be a continuing one. The work of the Council is fundamental to the success of the newly incorporated National Examining Board.

In February 1951 a meeting was called of representatives of all ten provincial licensing boards. At this meeting complete agreement was reached as a basis for the establishment of the proposed board. Proposed legislation was drafted

and submitted to each provincial legal board for approval. This legislation was eventually submitted to parliament, with the accompanying sanction of each provincial dental board, resulting in the enactment as stated above.

Representatives of the Association together with the solicitor for the Association appeared before the Senate Committee for discussion of the Bill. The comments by members of the Senate were noteworthy being to the effect that this legislation gave increase to the stature of the dental profession which was justly deserved and meant a new era of development in the profession. This step is initial to one or two others which may be possible in the near future and which will bring further and increased standing to the dental profession.

It so happened that the Dental Council of Canada met at Vancouver the same time as the Board of Governors of the Canadian Dental Association. The amicable spirit of cooperation between the two organizations is exhibited in the statement of policy stated below which the Dental Council of Canada presented to the Board of Governors during their sessions.

"1. For almost 50 years the Executive of the Dental Council of Canada has faithfully served the Profession. It has blazed the way and helped to maintain high professional and ethical standards for all of us. During that period, Certificates of Qualification have been issued by the Council.

2. It has, however, looked forward to the day when the Canadian Dental Association could assume its proper role in all national dental fields and is very happy to know that soon, plans for a National Examining Board will be finalized.

3. It is recognized that some time will be needed to iron out all the necessary details and produce a smoothly-functioning organization; but it is the hope of the Dental Council of Canada that this can be accomplished within the next few years so that the Council may then wind up its affairs, transfer its funds and terminate its existence without a chance of our Profession being left without a proper Inter-Provincial Examining Board.

4. To ensure the continuity of an Examining Board, it is necessary that certain questions be settled promptly. These we have listed as follows:
We Recommend:

(a) That the records of the Dental Council be turned over for the use of the new Organization and when this function has been completed, that these records be given in Trust to the Canadian Dental Association as an historical record.

(b) That a Slate of Officers of the Dental Council of Canada remain in existence for a short period to handle unfinished business.

(c) That the Certificates of the Dominion Dental Council and the Dental Council of Canada continue to be recognized by the agreeing Provinces.

5. In the meantime, as a significant gesture of goodwill and earnest cooperation, the Dental Council of Canada is happy to contribute the sum of \$6,000.00 to assist the National Examining Board in organizing its work and launching itself on what we sincerely hope may be a very long and successful career that will be a great factor in maintaining the present high standard of professional examination and in furthering goodwill and understanding among the members of our Profession from Coast to Coast."

During the immediate months ahead it is hoped that administrative organization of the new board can be arranged with as little delay as possible. It is most gratifying that the second half-century of the existence of the Canadian Dental Association can be begun with the culmination of this long-standing objective.

Many men owe the grandeur of their lives to their tremendous difficulties.—C. H. Spurgeon.

BOOK REVIEW

Oral Medicine, Diagnosis and Treatment, by Lester W. Burket, A.B., D.D.S., M.D., Sc.D., Professor of Oral Medicine and Dean of School of Dentistry, University of Pennsylvania; Professor of Oral Medicine, Graduate School of Medicine, University of Pennsylvania; Honorary Professor, National University, Bogotá, Colombia; Chief Oral Medical Service, Philadelphia General Hospital; Consultant to the Army, Navy and Veterans Administration. Includes a chapter on Oral Cancer by S. Gordon Castigliano, B.A., B.S., M.D., F.A.C.S. chief, Department of Head and Neck Tumours, American Oncologic Hospital, Philadelphia; Professor of Oncology, Temple University School of Dentistry and Associate in Oncology, Graduate School of Medicine, University of Pennsylvania. Second edition with 575 pages; 372 Illustrations including 40 subjects in colour. Published by J. B. Lippincott Company, 2083 Guy Street, Montreal, Quebec.

Protection of Oral health is a growing concept of present-day dental practice. To practise this concept the dentist must be more than a dental surgeon, he must be a dental physician. Here is a book written by a recognized

authority on Oral Medicine. It is comprehensive and practical; it is completely revised from the first edition and includes the many recent advances in this field of Oral Medicine. It discusses the many important relationships between oral and systemic disease and suggests opportunities for a more universal and intimate co-operation between medical and dental practitioners in giving the best possible services to our common patient.

There are eleven sections including Nutritional Deficiencies and Diseases of Metabolism; Focal Infection, Dental Pediatrics and Gerodontics; Specific Infectious Granulomata; and Oral Cancer. There is a splendid colour atlas presenting a group of 60 selected subjects illustrating oral lesions most commonly encountered by the dentist in daily practice. These are a valuable reference in conjunction with a Diagnostic Index provided in the concluding chapter.

The study of the material presented in this book broadens the horizon of dental practice in keeping with the advancement in dental science of our time.

The book invites more than casual reading.

T.R.M.

ROYAL CANADIAN DENTAL CORPS NEWS

Brigadier E. M. Wansbrough, Director General Dental Services, sailed from Montreal July 4 on the Empress of France for Liverpool. The Director will inspect the Dental facilities of the R.C.D.C. with the Royal Canadian Air Force in the United Kingdom, and the 27 Canadian Field Dental Unit in Germany. Brigadier Wansbrough will also attend the 11th Congress Federation Dentaire Internationale to be held in London during July.

Thirty-seven University undergraduates, members of the Canadian Officers Training Corps, are taking their third practical phase of training with the R.C.D.C. this summer. Following a four-week indoctrination course at the R.C.D.C. School, Ottawa, these students who hold the rank of 2/Lieutenant will be employed at various clinics under supervision.

Captains D. H. Hillier and J. G. Andrews were recently promoted to the rank of Major.

Major Hillier, 31, was born in Toronto and attended Parkdale Collegiate. He enlisted as a private in January 1944 while attending University of Toronto, was granted a commission on graduation in May 1945 and was promoted Captain May 1948. Major Hillier is married with three children, and is at present stationed at Edmonton.

Major Andrews, 38, was born in Toronto and attended Riverdale Collegiate Institute. On graduation from the University of Toronto, in 1941 he was granted a commission in the Canadian Dental Corps, served in Canada and the United Kingdom and retired to civilian practice in December 1945. He practised in Toronto until his reappointment to the Corps in October 1948. Major Andrews who is married with four children, has recently been posted from Trenton, Ontario, to Whitehorse, N.W.T.

Lt.-Colonel W. E. Meldrum, 54, Naval Command Dental Officer, has relinquished command of No. 12 Coy, R.C.D.C.,

Halifax, N.S., to become Officer Commanding the Royal Canadian Dental Corps School in Ottawa.

Lt.-Colonel K. M. Baird, 41, who has been Officer Commanding the Corps School, will succeed Lt.-Colonel Meldrum as Naval Command Dental Officer and the Command of No. 12 Company, Halifax.

A graduate of the Royal College of Dental Surgeons, Toronto, 1923, Lt.-Colonel Meldrum is a veteran of both the First Great War and the Second World War. He served as an officer in the Royal Canadian Naval Voluntary Reserve from 1917 to 1919 on Atlantic patrol and convoy service. Lt.-Colonel Meldrum joined the Canadian Dental Corps in 1939 and during the Second World War held a

series of senior administrative appointments. From 1944 to 1946 he served as deputy director of dental services (Navy). His wife, Agnes Kathleen Meldrum is a former Nursing Sister of the Royal Canadian Navy.

Lt.-Colonel Baird graduated from the University of Toronto in 1935 and was appointed to the Canadian Dental Corps in 1939. He proceeded overseas early in the war and held a series of appointments with dental units both in the United Kingdom and Northwest Europe. Since the war Lt.-Colonel Baird has served as assistant director of dental services at Army Headquarters and in 1947 was appointed to command the R.C.D.C. School. He is married and has three children.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

Vancouver Meeting—50th Anniversary:

Between 600 and 700 dentists were registered at the Golden Jubilee Meeting just concluded at Vancouver. The meeting was a most successful one and great credit is due the Vancouver Convention Committee for their work in organizing the meeting. An outstanding event was the Presidents' Dinner Party attended by over 800 guests. The scientific program was one of high calibre and included clinicians of outstanding ability.

Dr. G. Ratté of Quebec Elected President: Dr. Gustave Ratté, who has been a member of the Board of Governors for six years, became President of the Cana-

dian Dental Association at Vancouver. He has served on the Executive for several years as well as several other committees. Almost immediately after graduating from the University of Montreal he became active in organized dentistry and has served in many capacities. He is a member of the Board of the College of Dental Surgeons of the Province of Quebec and has held office continuously since 1929. He is past president of many organizations including La Société de Stomatologie de Québec. Dr. Ratté brings strong and experienced leadership to the office of President. Among the congratulatory messages by Dr. Ratté on his installation as President was one from the Prime Minister.

NEWS FROM THE PROVINCES

SASKATCHEWAN

Natural History Exhibition in Regina:

At the Provincial Exhibition held in Regina, Dr. Vernier Rondeau of Rouleau exhibited some of his specimens of natural history. He showed sponges, butterflies, a horseshoe crab, a piece of fan coral and an ostrich egg. He also showed a specimen of the trap-door spider. This spider builds himself a hole with a lid on it and placing his two front arms through holes in the lid he pulls it over him as he crawls in. The arms protrude above to catch any unsuspecting bug that gets close enough to be captured.

MANITOBA

Dental Hygienists in Manitoba: In Jan-

uary 1949 the Manitoba Legislature passed an amendment to the Dental Act of Manitoba giving the Board of Directors of the Manitoba Dental Association power, subject to the approval of the Lieutenant-Governor-in-Council, to pass by-laws:

"Providing for the establishment, development, regulation, and control of an ancillary body to be known as dental hygienists."

The Board has been waiting since that date to announce to the dental profession

of Manitoba that they may legally employ dental hygienists. The by-laws have now been approved by Order-in-Council and are satisfactory to the Board of Directors of the Manitoba Dental Association. Copies of the by-laws will be mailed to all registered dentists in the province.

NEW BRUNSWICK

The fourth annual **Maritime Dental Convention** was held in Fredericton on July 7-9 at the Lord Beaverbrook Hotel. The weather although warm was perfect for a convention with brilliant sunshine and in the evening a full moon to feature the social gatherings. Socially the Fredericton hosts went all out to make the convention a great success. Dr. R. B. Ross was General Chairman for the N.B. Dental Society and a great deal of credit goes to him and his Fredericton committee for the excellent running of the program. Dr. R. S. Langstroth, President of the N.B. Dental Society, acted as luncheon chairman. On Monday and Wednesday there were well-attended mixed luncheons. Entertainment for the ladies was a feature of the convention and doubtless this will do much to promote larger attendance in future years.

The convention was honoured by the presence of the new President of the C.D.A., Dr. G. Ratté of Quebec City. Dr. Ratté spoke at the Monday luncheon meeting on the C.D.A. He gave a résumé of what the C.D.A. was doing and what it hoped to accomplish. Dr. F. A. McGrand, the Minister of Health for New Brunswick, was also a guest speaker at this function. He spoke on dentistry as a branch of medicine and about dental public health. At Tuesday's luncheon the guest speaker was Dr. S. K. Wetmore, who talked briefly on the D.V.A. regulations. On Wednesday the Rev. Dr. G. H. Young, a retired United Church Minister, gave a very entertaining and humorous speech on dentists and dentistry as related to biblical history.

One of the highlights of the social entertainment was the trip on Tuesday evening down the Saint John River by power boats to the village of Oromocto. Here an old-fashioned strawberry festival was held with dancing afterwards to a country fiddle.

The basement of the new Federal Building near the Lord Beaverbrook Hotel contains the cool and well-ventilated National Film Board Theatre, where the clinics and essays were given. Dr. Lewis Miller of Fredericton was Chairman of the Clinics Committee, and he should be complimented, not only on the smooth running of these sessions but in the choice of clinicians and the wide variety of their subjects. In order of

their appearance the following is a brief summary of these clinicians and clinics.

Dr. F. George Johnson, a graduate of Harvard Dental School, gave three very interesting clinics, one each day. Dr. Johnson spent three years in Oral Surgery with the U.S. Army, and did several years postgraduate work in Oral Surgery under such able instructors as Dr. Kurt Thoma and Dr. David W. Weisburger of Boston. The subjects chosen were of a wide variety and the clinician was generous by requesting and answering questions. His subjects were "Diagnosis and Treatment Planning"; "Surgical Operations for the General Practitioner" and "Medication and Anaesthesia for Oral Surgery." Dr. Johnson is now in general practice in Old Town, Maine.

Dr. Jean Nadeau, Professor of Prosthetics at the University of Montreal, gave a very instructive and practical clinic on "Full Dentures" including the closed mouth technique for impressions. Dr. Nadeau not only had a very practical technique but was capable of detailing it with slides so that everyone could follow the sequence of steps.

Dr. Tom Marshall, who has been a practising dentist in the City of Toronto since 1921, a past president of the Toronto Academy of Dentists and a leader in dental public health for years, is no stranger to the readers of this Journal. Dr. Marshall has been Assistant Editor of the Canadian Dental Journal since 1942. Dr. Marshall gave two very excellent papers. The first was entitled "Dentistry 1952" and the second "Some Suggestions Promoting Profitable Practice". These papers were of great interest both to the older practitioner and to the young student starting to organize a practice. The wealth of knowledge and the ideas given were obviously gleaned over the years by original thought, selective reading and personal contact with leaders in the profession.

One of the most interesting of the essayists was Dr. Harry Brown, the Chief of our Dental Division of the Department of Health and Welfare. Dr. Brown gave a paper on "Water Fluoridation and the Responsibility of the General Practitioner". Although Dr. Brown is to be congratulated on the manner and the eloquence with which he presented his paper, it was the pertinent facts on Fluoridation that were so interesting. He stated the proof of the D.M.F. rate going down with water fluoridation was positive if not conclusive. With Sarnia as the control and Stratford having a natural supply of 1.3 parts per million since 1917 the artificial supply in the Brantford water makes the experiment sound like the

logical proof of a Euclid Theorem. If Stratford had a D.M.F. 68% lower than Sarnia, then it is certainly of great importance to dentistry. Another remarkable statement was Dr. Brown's observation backed by statistics that it is very rare to see a cavity with anterior tooth decay in the fluorine treated clinics.

The table clinics were given during the first morning. The following is a list of those clinicians and clinics. Dr. L. J. Archibald, Halifax, N.S., "Application of Matrix Bands"; Dr. P. S. Christie, Halifax, N.S., "Restoring the Incisal Angle by Means of Plastics"; Dr. D. C. Eaton, Halifax, N.S., "Practical Root Canal Filling"; Dr. J. A. MacLeod, Truro, N.S., "Mouth Protection for Athletes"; Dr. R. N. D. Rice, Petitediac, N.B., "Demonstration of Fly Tying"; Mr. E. L. R. Williamson, Brockville, Ont., "The Canadian Dental Association Pension-Assurance Trust"; Dr. G. G. Orser, Dept. of Health, Charlottetown, P.E.I., "Demonstration of Portable Dental Equipment"; Dr. J. F. Edgcombe, Saint John, N.B., "The Manipulation of Compound for Amalgam Matrices".

The annual meeting of the **Nova Scotia Dental Society** was held during the Maritime Dental Convention. The new President, Dr. H. M. Parker of Sydney, N.S., extended a very hearty invitation to the members present to attend next year's Maritime Convention in Nova Scotia. It was expected that this convention would be held in September at the famous Keltic Lodge in Cape Breton. This would afford an excellent opportunity for members who have not been around the Cabot Trail to do this trip either before or after the convention.

J. F. E.

NOVA SCOTIA

The annual election of officers of the **Halifax County Dental Association** resulted in the following slate being elected for the ensuing year:

President, Dr. John Merritt, Halifax, N.S.; Vice-President, Dr. K. M. Kerr, Bedford, N.S.; Sec.-Treasurer, Dr. W. H. McNeil, Halifax, N.S.; Executive Member, Dr. Gordon Caldwell, Dartmouth, N.S.

The fourth annual meeting of the

Maritime Dental Association was held in Fredericton, N.B., July 7-9. The attendance exceeded all previous records and the large number of wives accompanying their husbands added much grace to the social events of the meeting.

We were happy indeed to extend the courtesies of the Convention to Dr. and Mrs. H. R. Skilling of Toronto and Dr. and Mrs. R. W. Hoffman of Hamilton. The many friends of Dr. Tom Marshall of Toronto, who was one of the clinicians, were very happy to find that he has greatly improved in health.

The annual meeting of the **Nova Scotia Dental Association**, which took place during the Convention, elected the following slate of officers:

President, Dr. Hardy Parker, Sydney, N.S.; 1st. Vice-President, Dr. P. S. Christie, Halifax, N.S.; 2nd. Vice-President, Dr. A. D. MacGregor, Truro, N.S.; Sec.-Treasurer, Dr. A. B. Haverstock, Halifax, N.S.; Executive Member, Dr. L. B. Layton, Annapolis Royal, N.S.

H. M. E.

NEWFOUNDLAND

Newfoundland to Start Preventive Dental Service: Federal grants to assist in setting up a public health dental service at Clarenville, Nfld., and to help enlarge Grace Hospital, St. John's, have been approved.

First of its kind to be organized in Newfoundland, the program planned is regarded as most productive of results since it is designed to prevent deformities of the mouth, the early loss of teeth and other dental ailments which affect the individual not only in childhood but throughout life. The federal grant of \$5,100 will cover the cost of equipping the dentist's office, supplies and materials for children's work, and a salary to cover the time spent on working with children.

At the present time only six dentists practise in the estimated 2,200 settlements outside St. John's.

Grace Hospital, operated by the Salvation Army, serves about 67,000 people in St. John's and district but also accepts patients from all parts of the island.

Dept. National Health and Welfare.

GENERAL NEWS

The Editor of the Fortnightly Review of the Chicago Dental Society has this to say, in part, about the **Future of Dentistry**.

"The financial position of dentists has

been strengthened considerably during the past ten years and it appears that this trend will continue. The demand for dentistry noted during the last decade is the result of a better financial position

on the part of the public, greater appreciation of our services and, finally, the perfection and penetration of dental education. Since the public has come to expect dentistry, it is reasonable to assume that they will continue to do so if their financial picture follows the forecasts made by the economists.

"Our future in dentistry depends upon many features: 1. The continued increase in population and national income; 2. The solving of the long-range problem of deflation for we must find markets for four times the goods we now sell; 3. The solving of the present international crises; 4. A revision of the tax setup both national and local; 5. The ability to continue and improve dental education; 6. The continued vigilance of organized dentistry in its fight against socialized medicine."

Increase in A.D.A. Paid Membership:—

On March 31, 1952, the total number of members of the American Dental Association who had paid their dues for the current year amounted to 66,708, an all-time high and representing an increase of more than 5,000 over the corresponding date of last year.

U.S.A. Dentists' Income Surveyed by Commerce Department:—The average dentist in the United States had a net income of \$7,743 in 1951, according to an official estimate published by the Department of Commerce during the last week in July. This figure compares with \$7,293 in 1950 and \$7,037 in 1949.

Terramycin in Oral Surgery:—Dr. Les. Winter, Jr., of the Oral Surgery Service, Bellevue Hospital, New York City, and Dr. Bruce Van Gaasbeek of the U.S. Naval Training Centre, Bainbridge, Md., reports on Terramycin as follows in the *Journal of the Wisconsin State Dental Society*, July 1952:

"Terramycin is a powerful and effective antibiotic which can control infections in and about the oral cavity.

"Terramycin is more suitable than penicillin for treatment of infections originating in the oral cavity due to its action against the gram-negative organisms, all of which are frequently cultured from infections originating in the oral cavity.

"Reactions to terramycin are rarely observed but, when present, are usually of minor character, such as a mild nausea or diarrhoea or peri-anal itching; however, the drug may not have to be stopped until a therapeutic result has been achieved.

"Terramycin is not only effective in

rapid treatment of existing infections in and around the oral cavity, but it also is an efficient agent to be used prophylactically when postoperative infection is anticipated."

Increase in Canadian Medical Association Dues:—

Effective January 1, 1953 the annual fee of the Canadian Medical Association will be \$20.00. This has been found necessary on account of new projects demanding more staff and increased costs. The budget for the coming year calls for \$75,000 more than the present revenue from members' fees and advertising.

Herpes Zoster:—It is reported in the *New York State Medical Journal* that the injection of an enzyme called protomide gives excellent results in the treatment of shingles.

Some Laboratory and Clinical Observations on a New Antibiotic, Erythromycin (Ilotycin):—The Mayo Clinic has presented a preliminary report on Erythromycin as follows:

"It appears from what has been reported that erythromycin is fairly readily absorbed into the serum when administered by the oral route and that it diffuses rather readily and uniformly into most of the body tissues studied. Its antibacterial activity, its lack of any apparent serious toxicity and the results of our studies of its pharmacologic behaviour have prompted the use of erythromycin in a limited number of infections.

"We have adopted the policy of administering erythromycin by the oral route every six hours. This roughly represents a daily dose of 20 to 25 mg. per kilogram of body weight. It is hoped that preparations of erythromycin suitable for intravenous administration will become available in the near future."

Cerebral Palsy:—Development of a drug that offers new hope in providing needed dental treatment for cerebral palsy patients with ease and safety has been reported in the *Journal of the American Dental Association*.

Use of the drug, known as mephene-sin, was described in a preliminary report by Dr. Manuel M. Album, of Philadelphia, chief of the dental service of the Philadelphia Society for Crippled Children.

"Mephene-sin enables the dentist, heretofore afraid of inflicting injury on himself and on the patient, to treat cerebral palsy patients successfully."

Dr. Album said the drug was found

to relieve muscle spasms and rigidity and could be given without the fear that a tolerance for the drug would be built up.

The report was based on use of the drug on 35 patients, ranging in age from 2 to 34 and representing all types of cerebral palsy.

Dentists Move South and West:—The nation's dentists have been tending to shift their practices from the eastern and central states to the southern and western states, it was reported in the *Journal of the American Dental Association*.

California and Florida have drawn the largest number of dentists from

other states within the past two years, the study showed, and more dentists have moved out of New York than any other state.

In the state-to-state relocation, the states that chalked up the largest net gain of dentists and the totals were: California, 139 dentists; Florida, 125; Texas, 49; Virginia, 45; Colorado, 26, and Arizona, 21.

\$0.00 Doctor's Bill: A Minneapolis woman received a doctor's statement for \$0.00. Upon enquiry she found that the doctor's wife-secretary had rendered this account because this was the first time in over a year that there wasn't an entry under her name and she couldn't resist sending a statement.

IN MEMORIAM

Edwin A. Peaker of Toronto, Ontario, aged 82, died July 24. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1893 and practised in Parkdale for 55 years.

He played in the Brampton Excelsior Lacrosse Team at the time the team won several Dominion championships. He also played with the Univ. of Toronto Lacrosse Team. An enthusiastic curler, he skipped the rink winning the Canada Life Trophy in 1933 and 1934.

He was prominent in the Masonic Order and a member and past master of Parkdale Lodge. He was a past district deputy of the Grand Lodge of Ontario and held a 32nd degree in the Scottish Rite. An active member of Parkdale

United Church, he served as chairman of the board of stewards for 25 years.

Dr. Peaker is survived by his widow, two daughters, five grandchildren, a brother and two sisters.

Oliver A. Peaker of Brampton, Ontario, aged 73, died July 26, forty-eight hours after the death of his brother, Dr. Edwin A. Peaker of Toronto. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario.

He was an ardent curler and former lacrosse player. He was a member of Grace United Church, served for some years as elder and sang in the choir.

Dr. Peaker is survived by his widow and two sisters.

DIRECTORY

Canadian Dental Association Headquarters—234 St. George Street, Toronto, Ontario.

Matters relating to the publication of manuscripts or news items for the English Section of the *Journal* should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

Matters relating to the French Section of the *Journal* should be addressed to the French Editor, Dr. G. de Montigny, 400 est Blvd. St. Joseph, Montreal, P.Q.

Matters relating to the business of the *Journal* should be addressed to the Business Manager, Dr. Don W. Gullett, 234 St. George Street, Toronto, Ontario.

Subscription Price of *Journal* in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

All additions and changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

SEPTEMBRE, 1952

No 9

Médication en chirurgie buccale*

par GERARD de MONTIGNY, D.D.S., Montréal

Les traitements dentaires proprement dits ne consistent pas seulement dans des actes mécaniques. Tous les jours, le dentiste, dans son cabinet, a l'occasion de prescrire des médicaments pour influencer l'état général de son patient ou pour exercer une action locale dans la région buccale.

Cette fonction thérapeutique du praticien l'apparente au médecin et lui confère davantage un caractère professionnel, puisqu'elle néglige l'aspect technique pour se confiner exclusivement à l'étude de la physiologie et de la pathologie.

La science médicamenteuse a beaucoup évolué depuis une dizaine d'années; bien révolue est la période des cataplasmes et des huiles essentielles!

Le dentiste contemporain se doit de connaître la pharmacopée moderne.

Cette communication ne se propose pas de faire une revue complète de tous les médicaments à l'usage du dentiste. Les cours de matière médicale se chargent de cette tâche. Dans cet exposé, l'auteur ne se propose que des considérations pratiques sur la médication dentaire et plus spécialement sur celle employée dans le domaine chirurgical; de plus, il veut témoigner au docteur Jos. E. Johnson, chef du service de chirurgie buccale de l'Université de Toronto, ses remercie-

ments pour les notes fournies sur les antibiotiques.

Sédatifs

Les sédatifs les plus communément prescrits sont les barbituriques parce qu'ils sont faciles d'administration et de faible toxicité (50 gr.) En général, tous les barbituriques ont le même effet. Comme agent thérapeutique, toutes les préparations actuellement sur le marché, quoique de noms différents, ont à peu près les mêmes effets pharmacodynamiques. Elles sont différentes, par la dose, la durée de leurs effets et par leur marge de sécurité.

Les barbituriques exercent une action dépressive sur le cortex et ne produisent par d'irritation locale. Ils peuvent être absorbés par la bouche, par le rectum, par voie hypodermique et intra-veineuse. Ils n'ont pas d'effet sur la respiration, la circulation, le métabolisme et les muscles lisses. L'inconvénient de ces médicaments réside dans le fait qu'ils peuvent provoquer l'habitude.

Ces patients doivent sans cesse augmenter la dose pour obtenir les mêmes résultats. Cette tolérance ne nous concerne pas directement, car nous ne prescrivons ces médicaments qu'à l'occasion.

Les barbituriques s'éliminent dans l'urine et laissent des traces dans les

*Séminaire donné durant un cours postscolaire en chirurgie buccale à la Faculté de chirurgie dentaire de l'Université de Montréal.

selles; cette reno-élimination n'a aucune signification clinique.

On peut hâter l'effet de ces médicaments en les prescrivant avec un peu d'eau chaude ou en perçant la capsule.

Dans certains cas, l'effet sédatif est précédé d'une période d'excitation ou de délire et parfois l'effet se prolonge trop longtemps. Par ailleurs, on a rapporté des réactions cutanées, sous forme de rougeurs ou d'urticaire sur la figure et les bras.

De toute façon, l'histoire de cas du patient nous éclairera sur ses antécédents personnels en face de ces médicaments.

Quelle marque de barbituriques devons-nous prescrire? D'une façon générale, nul facteur physiologique ne peut nous aider dans ce choix. A moins qu'il n'ait éprouvé quelque ennui dans le passé à l'absorption de tel ou tel barbiturique, le patient ordinaire peut recevoir une dose de n'importe lequel de ces barbituriques.

L'effet est plus rapide par injection.

- 1) *Nembutal* (Pento-barbital, aux Etats-Unis)

$1\frac{1}{2}$, $\frac{3}{4}$, $1\frac{1}{2}$ gr. Fabriqué par la maison Abbott.

Ce médicament est utilisé couramment dans notre service, à l'Université de Montréal.

- 2) *Seconal*

$1\frac{1}{2}$, $1\frac{1}{2}$ gr. Fabriqué par Lilly.

Son effet est plus rapide, mais plus fugace.

- 3) *Amital de Sodium*

Plus faible; prescrit couramment pour les désordres nerveux chroniques.

Fabriqué par Lilly.

- 4) *Pantopon*

Dérivé de l'opium (pantopium).

Equivalant à $1/12$ gr. de Morphine.

Analgésique et sédatif.

Se donne par injection: 1 c.c.

Fabriqué par Hofmann-Laroche.

- 5) *Morphine*

Devrait se prescrire à l'hôpital seulement.

Une injection de Morphine comprend généralement:

$\frac{1}{4}$ gr. Morphine et $1/100$ gr. d'atropine.

Le rôle de l'atropine est de contre-carrer l'effet dépressif de la Morphine et aussi son action sur l'intestin (constipation). L'atropine est un adjuvant analgésique et hypnotique.

- 6) *Sedol*

Se donne en injection hypodermique; est le sédatif rapide idéal en chirurgie buccale; il contient:

$1/10$ gr. morphine

$1/300$ gr. scopolamine

$1/3$ gr. sparteine

g.s. 1 c.c. serum physiologique

Hémostatiques

Le traitement des hémorragies soulève des problèmes complexes et des plus controversés. Il y a tout un arsenal de médicaments recommandés pour prévenir et guérir cette complication post-opératoire. Un aspect important de cette question consiste dans le fait que le patient qui souffrant d'hémorragie s'énerve outre-mesure. Plus ce patient s'énerve, plus les sécrétions de la glande surrénale (épinéphrine) augmentent et plus forte est l'hémorragie.

C'est pourquoi, il faut d'abord calmer ce patient par tous les moyens à notre disposition: sédatifs, psychologie, etc. Parmi les substances médicamenteuses recommandées pour les hémorragies, quelques-unes agissent sur les vaisseaux eux-mêmes, d'autres augmentent le pouvoir de coagulation du sang. Nous croyons que le dentiste devrait surtout s'attacher aux médicaments qui ont un effet sur le sang lui-même, puisqu'il peut toujours exercer une pression mécanique en comprimant les tissus de l'alvéole.

- 1) *Coagulen*

Fabriqué par Ciba; elle contient des globulins (8%) et de la lactose (80%); ainsi, ce médicament qui renferme de la thromboplastine et de la lactose se dissout facilement dans le serum.

Ce médicament est injecté dans les muscles (5 c.c.) et peut aussi être pris par la bouche.

Ce médicament s'emploie plutôt en mesure préventive.

2) *Synkavite*

Vitamine K; son emploi en dentisterie n'a jamais été bien motivé, mais le Council on Dental Therapeutics de l'Association Dentaire Américaine a inscrit cette préparation sur les listes officielles. La vitamine K joue un rôle dans la formation de la thrombine et son absence totale a été notée dans plusieurs cas de carence en prothrombine.

Se donne généralement en injection hypodermique: 1 c.c. qui peut être répétée.

3) *Hemo-Pak—Oxycel*

Fabriqués par Johnson et Johnson et Parke et Davis.

En contact avec la matière organique, ces agents libèrent de l'acide cellulosique, qui a une grande affinité pour l'hémoglobine. Ils agissent comme tampons et sont absorbés par les tissus; ils retiennent les éléments globulés du sang; ils sont utilisés en chirurgie générale quand des sutures ne peuvent être mises en place.

4) *Gelfoam et Thrombine*

Fabrique par Upjohn. Consistent en éponge gélatineuse, qui est saturée de sels de thrombine (en ampoules, qui sont dilués avec du serum physiologique).

5) *Thromboplastine*

Selon Prinz, la thromboplastine est le médicament de choix pour le traitement des hémorragies. Elle est supposée fournir au sang les éléments nécessaires à sa coagulation. Est fabriquée par Lederle. Une boulette de coton en est saturée et enfoncée dans l'alvéole pour 24 heures.

Stimulants

Les stimulants doivent figurer dans l'arsenal des médicaments dentaires. La faiblesse et parfois l'inconscience manifestées par certains individus au cours de l'anesthésie et de l'intervention, justifient leur utilité. L'anesthésie est souvent en cause; nos solutions anesthésiques contiennent un agent vaso-constricteur qui peut, dans certaines circonstances particulières, produire une anémie de centres cérébraux.

Le choc opératoire est parfois responsable de ces faiblesses; ses répercussions se manifestent sur les grandes fonctions vitales, comme la respiration et la circulation.

La plupart du temps, ces faiblesses sont occasionnées par la tension nerveuse dont souffre le patient. Il est sage de prévenir ces ennuis en prescrivant au patient, surtout avant une opération de longue durée, une médication sédatrice.

Toutefois, certaines faiblesses sont causées par le choc opératoire et doivent être traitées à l'aide de stimulants.

1) *Strychnine*

1/30 ou 1/60 gr. en comprimés ou en ampoules (1 c.c.) pour injection hypodermique. Ce médicament a un effet sur les centres vasomoteurs. Il augmente la pression artérielle et abaisse le rythme du pouls par son action sur le nerf vague. Son effet est de courte durée, 15 minutes.

2) *Coramine*

Augmente l'amplitude respiratoire et la pression artérielle; la respiration et la circulation sont déficientes en état de prostration.

La Coramine est peu toxique, s'élimine facilement et rapidement et n'invite pas la tolérance.

Elle se donne par injection (1.5 c.c.-5 c.c.) hypodermique, intra-musculaire et intra-veineuse.

Elle se prend aussi par voie parentérale —30 gouttes dans un peu d'eau.

3) *Digitaline*

C'est le médicament par excellence pour les défaillances cardiaques—1½ gr.

Analgésiques

Il ne faut pas confondre ces médicaments avec les sédatifs: les analgésiques soulagent la douleur seulement.

1) *Aspirine*

C'est le plus connu des analgésiques; il est de plus anti-pyrétique et anti-rhumatique.

Il contient 5 gr. d'acide acétylsalicylique.

2) *Cibalgine*

Contient: Aminopyrine: 3½ gr.

Dial (barbiturique): ½ gr.

La Cibalaine a donc un léger effet sédatif.

L'Amynopyrine est semblable à l'anti-pyrine et à l'acétaniline, qui sont des dérivés du goudron et dont l'effet se transmet au système nerveux central.

L'aminopyrine a une action plus lente mais, par contre, plus prolongée que celle de l'anti-pyrine.

On lui a attribué parfois l'agranulocytose (diminution des globules blancs dans les lésions ulcéraives de la gorge). Elle doit être prescrite et sa posologie est d'un comprimé, toutes les 5 ou 6 heures.

3) Demerol

C'est un succédané de la morphine. C'est un analgésique, un anti-spasmodique et un sédatif. Son effet est semblable à celui de la morphine.

Son effet anti-spasmodique est supérieur à celui des opiacés, parce qu'il soulage les coliques et prévient la constipation, qui souvent suit l'emploi de la morphine. Son action sédatrice vient à bout des tensions nerveuses et une injection suffit souvent à provoquer le sommeil. Le Demerol est efficace dans le soulagement de la douleur et de la tension qui suit une intervention.

La dose moyenne pour les adultes est de 100 mgr., en injection intramusculaire ou par la bouche.

Cinquante milligrammes suffisent à soulager la douleur chez certains individus; d'autres doivent absorber jusqu'à 150 mgr. (toutes les 3 heures) pour obtenir un effet identique.

Des étourdissements accompagnent souvent l'analgésie.

4) Physeptone

Fabrique par Burroughs and Wellcome. Posologie: 5 mgr., toutes les 6 heures. C'est un spécifique de la douleur.

Antibiotiques

Leur mode d'action n'est pas totalement compris; ils agissent probablement en bloquant les voies du métabolisme intercellulaire. La Pénicilline exercerait son action en abaissant les sources d'acide glutaminique. On attache moins d'importance aujourd'hui à la théorie qui veut

que des colonies de bactéries deviennent résistantes à la Pénicilline. Il se peut que la Pénicilline n'ait jamais eu d'effet sur ces bactéries; toutefois, les recherches en bactériologie qui se poursuivent constamment nous révéleront peut-être un jour une solution à ce problème. Il faut frapper "fort et vite," avec l'espoir que les bactéries seront toutes détruites avant que certaines espèces développent une pénicillo-résistance.

Heureusement, le clinicien a à sa disposition plus d'un antibiotique; si l'un ne donne pas les résultats, espérés, il peut en utiliser un autre. Une réaction favorable doit se manifester entre 24 et 48 heures; s'il n'y a pas d'amélioration après cette période, il faut changer d'antibiotique. Il faudrait mettre de côté les dragées et les poudres à base de Pénicilline; ces produits sont susceptibles de conférer l'immunité du patient envers la Pénicilline.

Sulfamidés

L'emploi des sulfamidés tire à sa fin; non pas que ces médicaments sont inefficaces, mais parce que de nouvelles médications nous sont proposées (auréomycine, chloromycétine). Les sulfamidés ont l'inconvénient de produire une irritation aux reins et de favoriser l'agranulocytose. Les sulfamidés sont prescrits de nos jours seulement dans trois affections: infection simple de l'appareil urinaire, dysentérie bactérienne et méningite à méningocoques. En un mot, *les sulfamidés ne sont plus les agents de choix pour les infections dentaires.*

Pénicilline

Il y a six sortes de Pénicilline: G, X, K, F, Dihydro-F et O. Elles diffèrent entre elles seulement par leur radical de substitution. La seule marque en production aujourd'hui est la Pénicilline G et quelque peu la Pénicilline O.

La Pénicilline G a un radical benzol, est stable et n'a pas à être conservée au réfrigérateur. Le gouvernement fédéral permet maintenant aux manufacturiers d'indiquer sur les emballages des solutions aqueuses (Pénicilline G), une date permettant leur emploi un an après la

sortie de l'usine, à condition que la solution contienne un préservatif.

Les solutions aqueuses de Pénicilline G, sans préservatif, sont stables pour une durée de 3 semaines, sans réfrigération. La Pénicilline et la novocaïne forment une combinaison chimique pas très intime, qui est dissoute, au site de l'injection, pour libérer la Pénicilline. La présence de novocaïne dans la solution est destinée à l'abolition de la douleur au cours de l'injection. La Pénicilline-Novocaïne est insoluble et doit être dissoute dans l'huile ou dans une suspension aqueuse, grâce à la catalyse d'un agent émulsif. L'absorption est proportionnelle au volume des cristaux; c'est pourquoi, on utilise les plus gros cristaux possible, mais pas trop volumineux pour boucher l'aiguille.

Réactions à la Pénicilline

Les dragées et les poudres à base de Pénicilline sont susceptibles de produire une sensibilité.

Les solutions aqueuses cristallines (sels de Na. ou K) sont responsables du plus grand nombre de réactions (10 à 15 pour cent).

Les solutions dites fortifiées déterminent à peu près le même pourcentage de réactions et ne devraient pas être employées couramment. Les solutions aqueuses — Pénicilline G-Novocaïne — déclenchent des réactions dans la proportion de 1 à 5%. Ces réactions se produisent plus fréquemment quand le patient a reçu une médication pénicillinique dans 90 jours qui précèdent. Il faut s'enquérir des injections que le patient aurait reçues et des dates où elles ont eu lieu. 1 c.c. (300,000) par jour suffit à contrôler les infections dentaires. L'absorption de Pénicilline par la bouche n'est pas à conseiller; elle coûte cher puisque 1/5 seulement est utilisé.

Auréomycine, Chloromycétine, Terramycine

Leurs propriétés sont tellement semblables qu'on peut les discuter ensemble. La Société Parke-Davis prépare la Chloromycétine d'une façon synthétique et l'offre en vente. Cet antibiotique est le seul à date qui est mis sur le marché de cette manière. La gamme bactériologique

de ces trois substances est à peu près identique; elles agissent surtout sur les gram-négatifs, les bactéries du typhus, sur quelques gram-positifs et, jusqu'à un certain point, sur les virus. Ces trois antibiotiques ont une toxicité faible et doivent être pris par la bouche. *Il ne faut pas les injecter*, parce qu'ils sont irritants et favorisent la nécrose. Ils peuvent être injectés dans la veine, dans des cas d'infection foudroyante, à condition qu'ils ne soient pas déposés en contact avec les tissus au point de l'injection.

Posologie

Pour des infections graves:

- adultes: 2 gr. stat.—ensuite 750 gr., aux six heures
- de 6 à 14 ans: 2 gr. stat.—ensuite 500 gr., aux six heures
- enfants en-dessous de 6 ans: 1 gr. stat.—250 gr., aux six heures.

Ces médicaments, parfois, prédisposent à des diarrhées graves. Dans ce cas, on peut amener un soulagement en faisant prendre du lait avec chaque dose (Northrop).

Dosage prophylactique pour l'endocardite

Les patients qui souffrent d'endocardite latente et qui ont à subir des traitements de chirurgie buccale, devraient recevoir une injection de 600,000 unités de Pénicilline, la veille, la journée même de l'intervention et le lendemain. Cependant, si la lésion est en activité on devrait aussi ajouter à cette médication un gramme de streptomycine par jour, pour tenter de contrôler la prolifération des enterocoques. L'administration prolongée de Pénicilline avant l'intervention est jugée nuisible dans ces cas, parce qu'elle est supposée favoriser le développement des enterocoques.

Incompatibilité des antibiotiques

Il y a incompatibilité entre les antibiotiques suivants, c'est-à-dire, qu'ils paralysent leur action particulière:

- Pénicilline - vs - Auréomycine
- Chloromycétine - vs - Terramycine

Nouveaux antibiotiques

Néomycine, Tyrothricine, Bacitracine, Subtiline et Polymixine.

Ces nouveaux antibiotiques ne sont pas

encore complètement au point, soit qu'ils ne soient pas encore suffisamment purifiés ou qu'ils occasionnent des ennuis hémolytiques, ou causent des irritations du foie ou des reins.

Indications pour l'emploi des antibiotiques en dentisterie.

a) Prophylaxie.

Endocardite infectieuse sub-aigue, septicémie, diabète, fractures, leucémie, agranulocytose, anémie, fièvre rhumatismale, maladies congénitales du coeur ou des valvules.

b) Contrôle des infections dentaires.

Péricoronite aigue ou chronique, ostéomyélite, phlegmon, sinusite maxillaire, infection aigue et infection post-opératoire.

Mode d'administration

1 c.c. (300,000 unités) de Pénicilline-Procaïne G en suspension aqueuse, injecté dans les muscles, semble être la méthode de choix. L'injection, pour les cas dentaires, devrait se faire au milieu du muscle deltoïde. Il n'est pas nécessaire d'injecter dans les muscles fessiers, à moins qu'il ne s'agisse de Pénicilline en suspension huileuse.

Façon d'injecter

Il faut bien agiter la bouteille, car avec certaines solutions, il est difficile d'obtenir un mélange homogène. Il faut utiliser une aiguille d'un pouce et demi et de gauge 20. Les suspensions aqueuses ont une tendance à bloquer l'aiguille, plus spécialement quand la Pénicilline séjourne dans la seringue seulement quelques minutes. Pour cette raison, il est à conseiller d'utiliser deux aiguilles, une pour charger la seringue et l'autre pour l'injection de la Pénicilline dans les tissus. Il faut choisir avec soin l'endroit de l'injection et le stériliser avec précaution. Une goutte de Pénicilline est expulsée de la seringue, le bout de l'aiguille est placé perpendiculairement sur la peau et l'aiguille est enfoncée fermement et rapidement (l'injection doit être donnée dans le muscle et non sous la peau). *Il est bon de retirer le piston pour s'assurer que le bout de l'aiguille ne s'engage pas dans un vaisseau. Cette précaution est*

importante. On injecte alors 300,000 unités.

Traitement des allergies à la Pénicilline.

La dose donnée en chirurgie dentaire ne détermine généralement pas de réactions allergiques, mais ces réactions se rencontrent parfois. (Les solutions huileuses sont plus susceptibles de déclencher ces allergies.) Ces réactions à la Pénicilline se manifestent par des rougeurs sur la peau, urticaire, oedème angioneurotique, herpès, etc.

Ces manifestations sont plus susceptibles de se produire à la suite d'une médication prolongée à la Pénicilline. Le traitement classique de ces réactions allergiques repose sur l'administration par voie buccale d'antihistamines, comme la Pyribenzamine ou le Bénédril (Parke et Davis). La posologie indiquée consiste dans l'absorption de 50 à 100 mgr., 3 ou 4 fois par jour (3 ou 4 capsules). On peut rencontrer, mais plus rarement, une réaction allergique qui se traduit par une inflammation de l'épiglotte, qui rend la déglutition difficile. Dans ces cas, il faudra injecter dans les muscles 0.30 c.c. d'une solution de chlorure d'adrénaline (solution 1-1000). Cette thérapeutique réduira l'oedème de l'épiglotte pour permettre l'absorption d'anti-histamines. Si la congestion ne diminue pas suffisamment après 15 minutes, on peut donner une autre injection d'adrénaline (0.30 c.c.). Les injections intra-veineuses de Pénicilline dans l'huile sont dangereuses, parce qu'elles sont susceptibles de produire une embolie.

Conclusions

La Pénicilline est l'antibiotique de choix pour contrôler les infections dentaires. Sa toxicité, faible et son action sur une grande variété de bactéries en font un agent bien précieux. Cependant, on peut rencontrer des patients allergiques à ce médicament, mais on remarquera que la plupart de ces réactions surviennent quand les patients ont reçu une médication à la Pénicilline dans le 90 jours qui ont précédé la médication présente.

400 est, boul. St-Joseph.

Nouvelles de l'Association

Congrès de Vancouver—Célébration du cinquantenaire

Entre 600 et 700 dentistes se sont enregistrés à la réunion du Jubilé d'Or de l'Association, qui vient d'avoir lieu à Vancouver. Ce Congrès fut des plus réussis. Il faut rendre hommage au Comité du Congrès de Vancouver pour son travail inlassable à mettre sur pied son organisation. Le dîner du Président, auquel assistaient au-delà de 800 personnes fut le clou de ces assises. Le programme scientifique d'une très haute valeur, comprenait des cliniciens de

Le Dr Gustave Ratté, de Québec, est élu Président

Le Dr Gustave Ratté, membre du Bureau des Gouverneurs depuis six ans, a été élu Président de l'Association Dentaire Canadienne, à Vancouver. Il a fait partie de l'Exécutif durant plusieurs années et de plusieurs autres Comités. À la fin de ses études à l'Université de Montréal, il devint presque aussitôt membre d'organisations dentaires de toutes sortes. Il est Gouverneur du Collège des Chirurgiens-Dentistes de la province de Québec depuis 1929. Il est ancien président de plusieurs groupements, entre autres la Société de Stomatologie de Québec. Le Dr Ratté apporte à la présidence une activité et une expérience précieuses. Parmi les messages de félicitations reçus par le Dr Ratté à l'occasion de son élection à la présidence, on pouvait en voir un du premier Ministre du Canada.

Membres honoraires

Les Drs R. L. Pallen, de Vancouver et M. H. Garvin, de Winnipeg, ont été élus membres honoraires de l'Association Dentaire Canadienne, à la réunion du Cinquantenaire. Tous deux ont bien mérité de la profession et sont d'anciens Présidents de l'Association Dentaire Canadienne. Le Dr Pallen est actuellement registraire du Collège des Chirurgiens-Dentistes de la Colombie britannique. Comme tous le savent, le Dr Garvin est

le fondateur et encore le rédacteur du Journal de l'Association.

Le Dr Garvin fut en outre nommé membre honoraire de l'Association Dentaire Britannique. Cet honneur lui fut conféré fort à propos par M. Bryan Wood, rédacteur du Journal de l'Association Dentaire Britannique, qui assistait à la réunion comme représentant de cette Association.

Le Bureau National des Examineurs Dentaires reçoit son existence légale

Le projet de loi établissant le Bureau National des Examineurs Dentaires a reçu son approbation de la Chambre des Communes, après avoir été soumis au Sénat le 19 juin 1952. Le Bureau des Gouverneurs, au cours de sa réunion annuelle, a décidé de procéder à son organisation. Le fonctionnement de cet organisme repose sur l'élaboration de règlements acceptables; la rédaction de ces règlements nécessitera quelque délai. On espère que les premiers examens sous l'égide de cet organisme auront lieu au printemps de 1954.

À la première réunion de l'Association Dentaire Canadienne tenue à Montréal, en 1902, on adopta le principe d'organiser un Bureau National d'Examineurs. Comme résultat, le Conseil Dentaire du Dominion, devenu plus tard le Conseil Dentaire du Canada, prit naissance. Presque toutes les provinces reconnurent le diplôme de cet organisme pour fins de licence, mais pas toutes. Au cours des années qui suivirent, on s'efforça de trouver une formule acceptable pour toutes les provinces.

Le Conseil d'Enseignement Dentaire de l'Association Dentaire Canadienne a travaillé durant de nombreuses années à trouver une formule adéquate; il constata bientôt que cette tâche imposait une revue complète de l'enseignement dentaire. Durant les dix dernières années, le Conseil a entrepris une compilation des curricula des écoles dentaires et a formulé des recommandations pour améliorer les cours d'études. Il y a deux ans, le Con-

seil, avec l'aide de la Fondation Kellogg, entrepris une enquête sur les facultés dentaires du Canada. Cette enquête se poursuit encore et sera permanente. Le succès du Bureau National des Examineurs, nouvellement incorporé, repose donc sur le travail du Conseil.

En février 1951, des délégués des dix Collèges provinciaux se sont réunis et se sont entendus sur les bases d'organisation de ce nouveau Bureau. La législation à ce sujet fut soumise à chaque organisme légal provincial pour étude et approbation; elle fut ensuite soumise au Parlement, accompagnés de l'approbation des dix provinces; comme on le sait, elle fut votée.

Les représentants de l'Association, en compagnie de l'avocat de l'A.D.C. furent invités à comparaître devant le Comité du Sénat pour la discussion du bill. Certaines sénateurs firent des remarques intéressantes, à savoir que cette législation haussait le prestige richement mérité, par ailleurs, de la profession dentaire canadienne et signifiait une ère de progrès nouvelle pour la profession. Cette initiative ouvre la voie à des projets, qui pourront se réaliser plus tard et qui rehausseront le niveau de la profession dentaire.

Le Conseil Dentaire du Canada s'est réuni à Vancouver en même temps que le Bureau des Gouverneurs de l'Association Dentaire Canadienne. L'esprit de collaboration qui anime ces deux organismes s'illustre bien par l'exposé que le Conseil Dentaire du Canada fit au Bureau des Gouverneurs durant ses séances d'étude

"1. Pour près de 50 ans, l'Exécutif du Conseil Dentaire du Canada a fidèlement servi la profession. Il s'est efforcé de hausser le niveau professionnel, tant dans le domaine de l'étiquette que dans le rendement de toute la profession. Durant cette période, le Conseil a décerné 1799 certificats de compétence.

2. Toutefois, le Conseil a toujours souhaité voir l'Association Dentaire Canadienne prendre sous son contrôle tous les champs d'activité dentaire du pays; et le Conseil apprend avec joie que le projet d'un Bureau National des Exami-

nateurs est à la veille d'être mis sur pied.

3. Il faudra quand même un certain temps pour qu'une organisation du genre soit prête à fonctionner normalement et il reste encore une foule de détails à régler; le Conseil souhaite que la dernière main soit mise le plus tôt possible au rouage de ce Bureau et que tout soit prêt d'ici quelques années; le Conseil pliera alors bagage et remettra ses fonds à qui de droit, mettant ainsi fin à son existence; il ne faudrait pas que la profession restât sans organisme pour régler la question des licences d'une province à l'autre.

4. Pour qu'il y ait un lien de continuité entre les deux organismes, il faut régler tout de suite certaines questions. Les voici:

Il est recommandé:

a) Que les archives du Conseil Dentaire soient remises au nouveau Bureau, de façon à ce qu'il puisse s'en servir immédiatement et que, plus tard, elles soient confiées en fiducie à l'Association Dentaire Canadienne à titre de documents historiques;

b) Que l'Exécutif du Conseil Dentaire du Canada reste encore en fonction pour un certain temps afin de mettre ordre à ses affaires;

c) Que les certificats du Conseil Dentaire du Canada et ceux du Conseil Dentaire du Dominion continuent d'être acceptés par les provinces contractantes.

5. Entretemps, pour prouver sa bonne foi et son esprit de collaboration, le Conseil Dentaire du Canada met à la disposition du Bureau la somme de \$6,000.00 pour l'aider à défrayer les dépenses de son organisation. Nous lui souhaitons une longue et fructueuse carrière pour maintenir bien haut le niveau des examens dentaires et pour promouvoir la bonne entente entre les membres de la profession dentaire de l'Atlantique au Pacifique."

Durant les prochains mois, il faut souhaiter que l'organisation du Bureau progresse rapidement. Par une heureuse coïncidence, la seconde moitié du siècle d'existence de l'Association Dentaire

Canadienne débute par la réalisation d'un projet qui date de sa fondation.

Bourses pour les hygiénistes dentaires

Le Gouvernement de la Saskatchewan, par l'entremise de la section dentaire du Ministère de la Santé, offre encore cette année des bourses aux hygiénistes dentaires. L'an dernier, pour la première fois au Canada, des bourses étaient mises à la disposition des hygiénistes.

"Le Ministère de Santé publique offre trois bourses d'études pour un cours de deux ans en hygiène dentaire; à la fin de ces cours, les étudiantes recevront un diplôme en hygiène dentaire. Ce cours, qui peut être suivi à l'Université de Toronto ou aux États-Unis, commence en septembre et suppose comme qualifications minimum, un diplôme de 12 année, avec prépondérance sur les matières scientifiques."

Université de Montréal

FACULTE DE CHIRURGIE DENTAIRE

offre un cours post scolaire de courte durée en

Diagnostic et Chirurgie buccale

du 27 au 31 octobre 1952 inclusivement

Les cliniciens invités pour ce cours sont:

le docteur Edward V. Zegarelli

- chef du service de diagnostic et de radiologie, School of Dental and Oral Surgery, Université Columbia, New York.
- professeur agrégé de dentisterie, School of Dental and Oral Surgery, Université Columbia.
- consultant à divers hôpitaux de la ville de New York.

le docteur Harry M. Seldin

- auteur du manuel "Practical Anesthesia for Dental and Oral Surgery."
- ancien chef du service de chirurgie buccale de l'Université de New York.
- consultant au New York City Cancer Institute, au Harlem Hospital et au Peekskill Hospital.

PROGRAMME DU COURS

lundi, le 27 octobre

- 9 hres Dr ZEGARELLI—cours théorique:
"La responsabilité du dentiste en face d'un diagnostic, et une méthode rationnelle d'y arriver".
(suivi d'examen de patients).
- 2 hres Dr ZEGARELLI—cours théorique:
"Maladies de la langue".
(suivi d'examen de patients).

mardi, le 28 octobre

- 9 hres Dr ZEGARELLI—cours théorique:
"Les déficiences endocriniennes et leur répercussion dans la cavité buccale".
(suivi d'examen de patients).
- 2 hres Dr ZEGARELLI—cours théorique:
"L'interprétation des syndromes douloureux de l'appareil buccal".
(suivi d'examen de patients).

mercredi, le 29 octobre

- 9 hres Dr JEAN FONTAINE—cours théorique:
"Points de repère anatomiques en radiologie buccale".
- 10 hres 30 Dr ANTOINE RAYMOND — cours théorique:
"Etudes des structures osseuses du crâne en rapport avec l'anesthésie locale".

Les honoraires du cours sont \$75.00.

Ce montant peut être remboursé seulement dans des circonstances bien particulières. Les chèques ou les mandats-poste doivent être inscrits à l'ordre de l'Université de Montréal payables au pair, à Montréal. Les inscriptions et toute demande de renseignements doivent être adressées au:

Doyen, Faculté de chirurgie dentaire, Université de Montréal, Case postale 6128, Montréal, "Qué.

- 2 hres Dr VINCENT TREMBLAY—clinique:
"Stérilisation immédiate en endodontie".
- 3 hres 30 Dr ROLAND GENDRON—clinique:
"Equilibration de l'occlusion en vue d'une mastication physiologique".

jeudi, le 30 octobre

- 9 hres Dr SELDIN—cours théorique:
"L'emploi des élévateurs dans l'extraction des dents et racines".
(suivi de démonstrations chirurgicales sur patients).
- 2 hres Dr SELDIN—cours théorique:
"Les affections de l'articulation temporo-mandibulaire et leur traitement".
(suivi de démonstrations chirurgicales sur patients).

vendredi, le 31 octobre

- 9 hres Dr SELDIN—cours théorique:
"Diagnostic et traitement des entlures de la face et du cou".
(suivi de démonstrations chirurgicales sur patients).
- 2 hres Dr SELDIN—cours théorique:
"Techniques pour l'avulsion des dents incluses".
(suivi de démonstrations chirurgicales sur patients).

Presse étrangère

Note de la rédaction: La question exposée par notre confrère Joachim n'est pas nouvelle au Canada et elle sera agitée, surtout dans les provinces de l'ouest du pays, en face de la proportion décroissante du nombre de dentistes en rapport avec le chiffre de la population. Nous publions cette lettre pour fournir des arguments très sains et très justes aux défenseurs des prérogatives de la profession dentaire.

Nous sommes heureux de publier la lettre ouverte que le docteur Marcel Joachim a envoyée au Sénateur Uselding. On sait que ce père conscrit avait déposé un projet prévoyant l'accès à la profession de dentiste de certains mécaniciens-dentistes. Ce projet extraordinaire qui eût permis à certains mécaniciens, certes fort honorables, mais nullement qualifiés, d'exercer une des branches de l'art de guérir, a heureusement été rejeté par le Sénat. Nul doute que la lettre du docteur Joachim n'ait joué un grand rôle dans ce rejet, ce dont il y a tout lieu de le féliciter.

Monsieur le Sénateur,

S'il ne s'agissait pas du premier de tous les biens, "La Santé," peut-être pourrais-je prendre votre proposition de loi en faveur des mécaniciens-dentistes sur le ton plaisant et vous demander : Pourquoi demain ne pas permettre aux clercs de notaire d'exercer le notariat . . . pourquoi ne pas permettre aux greffiers de devenir juges?

Le sujet est trop grave, Monsieur le Sénateur, et je m'en voudrais de plaisanter.

La science et la science médicale évoluent à une allure vertigineuse et tous les pays s'efforcent de mettre à la disposition des malades les derniers progrès de la médecine, ce qui a conduit toutes les universités à créer des cours de perfectionnement auxquels n'ont pas honte de se soumettre des centaines et des centaines de médecins conscients de leur écrasante responsabilité vis-à-vis des malades et de la société.

La dentisterie a suivi le même chemin et dans le monde entier elle est basée sur de solides études universitaires. Voudriez-vous, Monsieur le Sénateur, retourner aux idées d'avant 1889 en tirant argument d'une étude que j'ai fait paraître en 1942 laquelle mettait en évidence le manque de dentistes en Belgique.

En admettant que depuis 12 ans la situation ne se soit pas améliorée (elle s'est en fait largement améliorée) serait-ce une raison suffisante pour exposer les malades à des praticiens dont les connaissances acquises, on se demande où (car actuellement en dehors des universités, il n'y a plus d'écoles dentaires) seraient nettement inférieures à celles du siècle passé.

Qui actuellement voudrait s'exposer sur une voiture de 1900?

Qui imaginerait un seul instant de se faire opérer par son barbier . . . et cependant il n'y a pas si longtemps, c'étaient les seuls opérateurs patentés et ils opéraient, et ils opéraient même quelquefois très bien.

Et quels seraient les heureux bénéficiaires ou les victimes de votre loi? Ni vous, ni la plupart des gens avertis et cultivés, mais la grande masse du peuple que vous prétendez servir.

Permettez-moi très simplement de vous demander : Quand vous serez atteint d'un abcès dentaire . . . quand votre prothèse irritera d'une manière inquiétante votre langue . . . qui consulterez-vous?

L'indispensable pour vous est l'indispensable pour tous, et le malade pauvre a le droit d'être aussi bien soigné que le riche.

N'oubliez pas, Monsieur le Sénateur . . . il s'agit de la santé de milliers et de milliers de personnes.

Votre compétence en toutes sortes de matières est indéniable, mais je vous en prie, ne discutez pas médecine contre l'Académie, contre les quatre Universités, contre la majorité des médecins et des dentistes, qui, jusqu'ici, n'ont pas si mal servi la santé publique.

Peut-être voulez-vous permettre aux étudiants de revoir ces cas graves de phlegmon

du cou, de cancer avancé des gencives, d'hémorragie après extraction mal menée, de troubles cardiaques et rénaux d'origine dentaire, cas qui actuellement ont à peu près disparu des hôpitaux grâce à la compétence des médecins et dentistes exerçant un peu partout dans le pays.

Si j'étais cynique, je vous dirais : Allez-y Monsieur le Sénateur, fournissez-nous de beaux cas cliniques et bien des médecins et chirurgiens qui dans l'intérêt supérieur de la santé publique, vous disent : "attention . . . casse-cou . . ." au fond d'eux-mêmes vous disent peut-être un grand merci pour les clients que vous vous préparez à leur envoyer.

Il y a des homicides par imprudence, Monsieur le Sénateur . . .

Veuillez agréer, Monsieur le Sénateur, l'assurance de mes sentiments distingués.

Marcel Joachim,
Docteur en Médecine,
Licencié en Science Dentaire.

Nouvelles Des Sociétés

SOCIÉTÉ DENTAIRE DE MONTREAL

La Société Dentaire de Montréal reprendra ses activités en septembre, sous la présidence du Dr Roger Charette. Le conférencier invité pour, mardi, le 16 septembre, à l'Hôtel Windsor (9.00 hrs p.m.) est le docteur B. B. Raginsky, M.D., qui traitera de "L'hypnotisme et sa place en dentisterie."

Le travail d'organisation a été confié à différents Comités, qui ont siégé plusieurs fois durant l'été pour mettre au point un programme annuel des plus intéressants.

La liste des conférenciers et des cliniciens qui seront invités à tour de rôle durant les neuf mois qui vont suivre, a été complétée et sera publiée sous peu.

Les dirigeants de la Société mettent tout en oeuvre pour intéresser leurs membres et pour attirer à ses séances scientifiques et sociales un plus grand nombre de dentistes de Montréal et des environs.

Pour illustrer le genre de conférences qui sont présentées, chaque mois, le Comité Exécutif publie ci-après le programme, qui fut offert l'an dernier, et deux rapports de séances qui n'ont pu être insérés à cause de la pénurie d'espace.

Activités de l'année académique 1951-52

SEPTEMBRE: Conférencier: Brigadier
J. Gauvreau. Sujet: *La protection civile*

en cas d'alerte. Activité sociale: Le tournoi de golf.

OCTOBRE: Conférencier: Armand Genest, M.D., D.D.S. Sujet: *Grefe osseuse en vue de la prothèse.*

NOVEMBRE: Conférencier: LeRoy Ennis, D.D.S., président de l'A.D.A., Sujet: *Interprétations et études radiologiques.* Activité sociale: Le parti aux huîtres.

DECEMBRE: Conférencier: André McKay, M.D. Sujet: *Troubles pulmonaires découlant d'accidents d'origine dentaire.* Activité sociale: Un Coquetel fut servi après la séance.

JANVIER: Conférencier: Jacques Demers, D.D.S. Sujet: *Les hydrocolloïdes.*

FEVRIER: Forum: J.-P. Lantier, D.D.S., *Dentisterie opératoire.* V. Dubé, D.D.S., *Prothèse.* M. Robichaud, D.D.S., *Ponts et couronnes.* G. Le-françois, D.D.S., *Céramique.* V. Tremblay, D.D.S., *Endodontie.* G. de Montigny, D.D.S., *Chirurgie.*

MARS: Conférencier: Louis Lepine, D.D.S., Sujet: *Un aspect de la coopération entre le praticien général et l'orthodontiste.*

AVRIL: Conférencier: Gérard de Montigny, D.D.S., Sujet: *Expertises en chirurgie-dentaire.*

MAI: LE CONGRES ANNUEL.

Séance de février 1952

La séance de février fut consacrée à la discussion de problèmes, qui concernent la pratique générale. Des experts dans différents domaines avaient été choisis pour répondre aux questions de l'auditoire.

Ce forum fut des plus goûtés et s'est avéré une formule des plus heureuses et des plus pratiques.

Voici les noms des spécialistes et les questions qui leur furent posées:

Dr J. P. Lantier, en Dentisterie Opératoire:

Pourquoi n'a-t-on pas suffisamment intensifié la pratique de la dentisterie opératoire?

Quel genre de rétention faut-il faire pour les substances plastiques?

Comment appliquer un vernis protecteur? Dr de Montigny, en Chirurgie:

Quel est l'âge indiqué pour l'ablation du frein labial?

Que pensez-vous de la subluxation?

Comment aider la guérison des alvéoles après l'extraction?

Comment réduire une enflure subite?

Doit-on extraire les dents qui apparaissent à la naissance?

Dr Dubé, en Prothèse:

Quelle est la meilleure technique de prise d'empreinte pour prothèse complète?

Quelles sont les causes d'échecs au point de vue esthétique en prothèse complète?

Quels sont les points de rétention pour un dentier complet du bas?

Que pensez-vous du "jumping" avec l'articulateur "Hanau"?

Dr Robichaud, en Couronnes et Ponts:

Pour quelles classes de cavités la méthode indirecte est-elle le plus indiquée?

Comment remplacer cinq dents antérieures enlevées accidentellement?

Est-ce que les dents inclinées peuvent être utilisées pour dents piles?

Dans quel cas peut-on suspendre une dent postiche à une attache?

Une dent traitée par l'endodontie peut-elle servir de dent pile?

Dr Lefrançois, en Couronnes de plastiques et porcelaine:

Quelles sont les indications pour une couronne en plastique?

Peut-on employer l'acrylique pour cimenter les inlays?

Comment obvier à la transparence de l'or dans le plastique?

Dr Tremblay, en Endodontie:

Dans le cas de pulpe exposée, préférez-vous tenter un coiffage de pulpe ou enlever la pulpe immédiatement pour diminuer les chances de pénétration des bactéries?

A la suite d'une lésion apicale, dans quel cas faire l'apectomie?

Quelles sont les indications du traitement de canal?

Séance d'avril 1952

Tenue le 15 avril à l'Hôtel Windsor. Au début de la réunion, une motion fut adoptée fixant la date de l'élection de l'Exécutif de la Société pour le prochain terme d'office au samedi 17 mai, immédiatement après la clôture du Congrès.

Le conférencier invité était le docteur Gérard de Montigny, qui parla d' "Expertises en Chirurgie Dentaire." De dentiste, dit-il, peut être appelé à jouer un rôle important dans les expertises médicales, quand l'appareil masticatoire est en cause. Les occasions où l'expert légal en chirurgie dentaire est appelé à exercer ses activités sont les suivantes:

- 1) Identification des cadavres rendus méconnaissables par des facteurs de destruction implacables; les dents, sont les tissus humains qui résistent le mieux à la décomposition ou à la combustion.
- 2) Assistance à la justice, quand il s'agit d'identifier des criminels qui ont laissé des traces de dents par des morsures ou qui ont subi des morsures de leurs victimes. Les dents des hommes et des animaux laissent des empreintes spécifiques qui peuvent être comparées facilement avec les dents.
- 3) Apport dans l'évaluation des dommages subis au cours d'accidents de toutes sortes et fixation des taux d'incapacités partielles et permanentes entraînées par ces accidents.
- 4) Tâche d'arbitre pour éclairer les tribunaux dans les cas de litige entre les

membres de la profession dentaire et le public qu'ils sont appelés à desservir. Ces litiges proviennent des honoraires, de la qualité du travail exécuté et des accidents professionnels.

Le docteur Léon Carpentier avait présenté le conférencier, et le docteur Ephrem Vinet le remercia au nom de l'assemblée pour le travail intéressant qu'il venait de présenter et profita de l'occasion pour souligner les nombreuses contributions que le docteur de Montigny ne cesse d'apporter à sa profession dans différents domaines.

La séance fut levée à une heure assez tardive, vu l'intérêt suscité par les questions à l'étude.

LA SOCIÉTÉ DENTAIRE DE ST-HYACINTHE

La Société Dentaire de St-Hyacinthe a été fondée en 1939, grâce au travail de base des Drs A. Bédard, Laurent Deslauriers, Ernest Daigle et Yves Lafleur. Après quelques séances d'organisation, à l'automne de 1939, tous les intéressés en vinrent à une entente et un conseil permanent fut élu, composé comme suit: Prés.—Dr A. Bédard; vice-prés.—Dr Laurent Deslauriers; secrétaire.—Yves Lafleur; trésorier: Hyacinthe Breton.

Une des premières initiatives fut de faire rencontrer les confrères fréquemment dans le but de se mieux connaître et d'étudier ensemble les problèmes de la profession dentaire dans la région. Le conseil élu en 1939 resta en fonction jusqu'à 1945. Durant son terme d'office, le conseil réussit à organiser une journée dentaire, à laquelle assistèrent au-delà de 75 dentistes, plusieurs réunions avec conférences et projections de films techniques, une Semaine d'Hygiène Dentaire, etc.

Durant les deux dernières années de la guerre, la Société languit quelque peu, à cause du départ pour l'armée de quelques-uns de ses membres. Mais en 1945, la Société fut réorganisée. Le Dr Laurent Deslauriers fut élu président, avec un nouveau conseil; de nouveaux membres vinrent augmenter l'effectif. En 1948, le Dr Laurent Picard fut élu président, avec

le Dr René David comme secrétaire. Sous l'impulsion du Dr Picard, le plus actif et le plus dévoué président que la Société ait eu, la Société devint plus vivante que jamais. Le docteur Picard organisa plusieurs diners-causeries, avec conférences et projections de films. Les membres de la Société fraternisèrent ensemble plus que jamais, pour leur plus grand bien matériel et moral.

Le Dr Picard ne se contenta pas de faire réaliser de grands progrès à la Société Dentaire de St-Hyacinthe. Il élabora l'audacieux projet de grouper les autres Sociétés de la région pour former avec elles la Société Dentaire Richelieu-St-François, groupement dans lequel chaque société locale, tout en gardant son autonomie, travaille au sein du nouveau groupement dans les mouvements d'ensemble. Grâce à cette initiative de la Société Dentaire de St-Hyacinthe, les autres sociétés locales ont réappris à vivre et à travailler avec les autres groupes dans l'intérêt général de la profession dentaire.

En juin 1950, le Dr Picard, qui est en même temps président de la Société Dentaire Richelieu-St-François, demande à être relevé de ses fonctions comme président de la Société de St-Hyacinthe, et le Dr Laurent Bouthillier est élu président pour le remplacer, avec le Dr Yves Lafleur, comme vice-président, et le Dr Maurice Bédard, comme secrétaire.

La Société Dentaire de St-Hyacinthe est plus vivante que jamais et continue à travailler à l'amélioration des conditions de vie de ses membres, tant au point de vue scientifique et social que financier. Le conseil actuel se compose comme suit: Prés.—Laurent Bouthillier; vice-prés.—Yves Lafleur; secrétaire-trés.—Maurice Bédard; Directeurs: H. Breton, E. Daigle, R. Philie, L. Picard, L. Gaboury, L. Deslauriers, R. David, J. C. Laurence, A. Tousignant, A. Bédard.

Yves Lafleur

LA SOCIÉTÉ DENTAIRE RICHELIEU- SAINT-FRANÇOIS

La Société Dentaire Richelieu-Saint-François, fondée en 1949, grâce à l'initiative de la Société Dentaire de St-Hya-

cinthe et de son dévoué président de l'époque, et aussi grâce à la belle collaboration de toutes les sociétés locales, groupe les membres de la profession dentaire des villes suivantes et des régions avoisinantes: Sherbrooke, Granby, Saint-Jean, Drummondville, Victoriaville, Farnham, Sorel.

Pour en arriver à fonder ce groupement, qui est devenu puissant, on convoqua à St-Hyacinthe, deux représentants de chacune des villes nommées plus haut. Ces délégués jetèrent les bases de la nouvelle association, et élirent un conseil général qu'ils firent ensuite approuver par leurs sociétés respectives.

La première grande réunion de la Société Dentaire Richelieu-Saint-François eut lieu à St-Hyacinthe, en novembre 1949. Ce fut un grand succès, tant à cause du grand nombre de dentistes qui y assistèrent, venus de partout, qu'à cause des bienfaits culturels et sociaux qui en dérivèrent. D'autres réunions aussi fructueuses ont eu lieu par la suite, à Drum-

mondville, à Sorel, à St-Jean, à Granby (2) et tout récemment, en juin 1951, à Sherbrooke. A toutes ces réunions, il y a d'abord un conférencier-invité. Ensuite, il y a discussion générale sur toutes les questions qui intéressent la profession dentaire. Le tout se termine avec des rafraichissements et un lunch.

On doit à la Société Dentaire une intensification de la lutte contre la pratique illégale et le travail fait par ce groupement n'a pas été étranger aux amendements à la loi dentaire qui permettent une répression un plus facile de la pratique illégale, ainsi que l'augmentation des pénalités. Cette Société a aussi contribué beaucoup à faire réaliser plusieurs initiatives; elle a aussi grandement contribué à faire revivre certaines Sociétés Dentaires locales. La Société Dentaire Richelieu-Saint-François a bonne envie de vivre, non seulement pour le plus grand bien de tous ses membres, mais aussi, nous osons le croire, pour le plus grand bien de la profession dentaire en général.

Les Pionniers de la Dentisterie à St-Hyacinthe

Un des premiers dentistes dont on fait mention à St-Hyacinthe est le docteur Trudeau, qui a exercé sa profession à une époque où les conditions de vie pour un dentiste étaient terribles: la profession n'était pas encore établie dans l'estime du public, et le docteur Trudeau avait à lutter et contre les médecins de l'époque et contre les charlatans. En autant que nous avons pu nous renseigner, le docteur Trudeau a pratiqué à St-Hyacinthe pendant un bon nombre d'années, malgré les obstacles, et il a laissé, semble-t-il, une réputation de très bon dentiste.

Le docteur Trudeau a eu comme successeur le docteur Fauteux, père du docteur Gaspard Fauteux, actuellement lieutenant-gouverneur de la province de Québec. Vint ensuite, vers 1900, le docteur Paul Fournier, qui pratiqua à St-Hyacinthe, jusqu'en 1928, alors qu'il prit sa retraite, pour mourir un an plus tard à Montréal.

Sans contredit, le docteur Fournier a laissé sur la profession dentaire tant de sa ville que de la province une marque ineffaçable, bien que discutable et très discutée. C'était un inventeur, et son invention principale, "l'Acaine", un anesthésique local, a fait couler beaucoup d'encre et de salive, de même que certaines de ses méthodes de travail.

Quelques années plus tard, vint le docteur A. Bédard, qui pratique encore aujourd'hui. Les docteurs Fournier et Bédard, avec des méthodes totalement différentes, se sont incontestablement créés, chacun de leur côté, une très grande réputation. Avec les années, d'autres dentistes vinrent exercer leur profession à St-Hyacinthe, à mesure que la population augmentait. Aujourd'hui, on y compte 13 dentistes. Le doyen de la profession est le docteur A. Bédard, qui compte plus de 40 années de pratique. Il est suivi de près par le docteur Rodolphe Philie, qui exerce sa profession depuis 21 ans. Les autres dentistes parient entre 2 ans et 29 ans de pratique.



Photograph by H. R. Sykes, D.D.S., London, Ont

MAIN STREET IN BANFF, ALBERTA

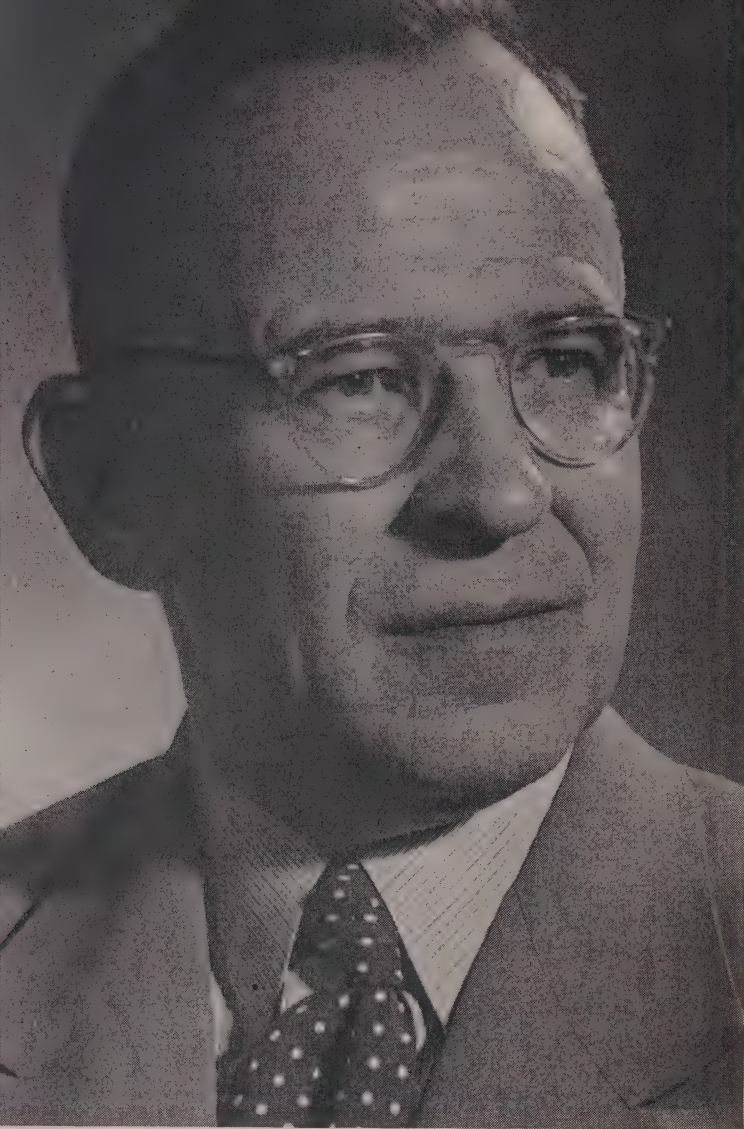
with Cascade Mountain in the distance

(Taken from Dominion Parks Administration Building)

WHAT TO GIVE

The best thing to give to your enemy is forgiveness; to an opponent, tolerance; to a friend, your heart; to your child, a good example; to a father, reverence; to your mother, conduct that will make her proud of you; to yourself, respect; to all men, charity. The essence of generosity is in self-sacrifice.

—Grenville Kleiser's *Scrap Book*.



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The Rebirth of Root Canal Therapy

by JOHN I. INGLE*, D.D.S., M.S.D., and ALFRED L. OGILVIE†, D.D.S., M.S.,
Seattle, Washington

PERHAPS once in a decade medical science rounds a corner; age-old preconceptions are swept away, as some discovery opens up an unexpected new field for study and research. In the 1920's insulin made practical the detailed investigation of sugar metabolism. In the 1930's the sulphonamides started a new phase in anti-bacterial chemotherapy. In the decade of the 1940's penicillin opened the Pandora's Box of natural antibiotics. Today, a new material, cortisone, holds forth equal promise. The present "era of the steroids" was born on September 21, 1948, at the Mayo Clinic. On this date, Dr. Philip Hench and his associates administered 100 mg's of Kendall's Compound E to a bed-ridden, arthritic woman. Three days later this patient was out of bed and walking with a slight limp, and within one week was able to go shopping downtown for three hours (*Fig. 1*). By April 13, 1949, after collecting evidence on fourteen such severe arthritic cases, the Mayo group made their discovery known to the world.¹ Reaction to the announcement was instantaneous. Immediately, the arthritic population clamoured for Compound E, or cortisone, as it is now called. The medical profession demanded more complete details about

the drug, and hundreds of research groups diverted experimentation into steroid chemistry. No application of cortisone to dentistry was immediately foreseen, but was this prediction justified?

What effect is this world-shaking development going to have in the field of dentistry? And, more specifically, what effect has the recent understanding of body steroids had upon the practice of endodontia? The answer to the first question is rather theoretical at this time. It would appear quite obvious, however, that the solution to the aetiology of periodontal disease and possibly dental caries lies within the province of the steroid chemist.

The Mayo announcement of the role of cortisone in the aetiology of rheumatoid arthritis has had the following effects on the future of endodontia:

1. It completed the emasculation of the theory of focal infection in the aetiology of rheumatoid arthritis.
2. It terminated the "Age of the 100 percenters", that era of wholesale sacrifice of various body organs.
3. It is bringing about a rebirth of root canal therapy, a revival which rests on a sound scientific basis and

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FIGURE 1

First dose of cortisone was given to a 29 year old woman who had severe rheumatoid arthritis for four and one-half years (*Left*). Three days later the patient was out of bed and walking with a slight limp (*Center*). Within one week the patient was able to shop downtown for three hours (*Right*). No claim is made that cortisone "cures" arthritis, but the results achieved have greatly changed the pattern of thinking in regard to the aetiology of arthritis.

is not fraught with the dangers of similar revivals in the past.

THREE MAJOR CONTRIBUTIONS

The sudden resurgence in endodontic interest is being propelled by three other major contributions:

First, there is evident an almost incredible improvement in the method of root canal sterilization through the advent of polyantibiotic therapy. This method of therapy has proved to us that we now have a powerful, swift and harmless agent to use in our constant battle against bacteria.

The second contribution is the new understanding which is now being applied to the old concepts of inflammation. The entire philosophy of endodontic therapy has been improved by recent advances in the study of tissue chemistry. Simple diagnostic signs and symptoms have taken on a new meaning, and both diagnosis and prognosis can now be determined with a far greater degree of certainty.

The third major advance has occurred through the improved and simplified endodontic methods. Root canal

therapy is no longer the stumbling, tedious, exasperating procedure that we once knew. In fact, endodontia may now be termed the most modern and fast-moving branch of dental science.

It would now be wise to go back and cover more thoroughly each of the salient points just listed. First of all, what more is there to this negation of the once powerful theory of focal infection? What conclusions led Kesel to state recently, "Now that the focal infection concept has adjusted itself to a sane position, there will be an increasing desire to retain natural teeth".² Are we guilty of heresy when we mention the fact that arthritis need not necessarily arise from infected teeth?

If we had been following the scientific medical literature, we would have realized that this revolt against the theory of focal infection began in the late 1920's. By 1929, physicians had been seeing certain patients for ten to fifteen years who had had full mouth extraction, tonsillectomy, appendectomy, cholecystectomy, *ad nauseum*, but who still had their orig-

inal arthritis. Occasionally when an operation for removal of foci of infection was done, the patients showed immediate improvement in their arthritic state, and another cure of arthritis was "chalked-up" on the tally sheet. Unfortunately the patients usually did not stay cured, but then, of course, this fact was rarely mentioned.

Cynics and skeptics of the theory soon were to be heard from, but ^{3,4,6} even through the 1930's they were still outvoiced by the proponents of the theory and their accumulated circumstantial evidence.^{6,7} As late as 1937, for instance, scientific papers were published showing that about 50 per cent of all extracted vital teeth and about 75 per cent of all extracted pulpless teeth were bacteriologically positive, when their pulps were cultured following extraction.⁸ This information was widely disseminated. However, concurrently in England, Fish and McLean⁹ reported that by cauterizing the gingival sulcus of a tooth about to be extracted, and then culturing the pulp following extraction, they had routinely found no bacteria in the vital pulps. They concluded, therefore, that the bacteria mentioned in other studies as a contaminant of the pulp, had, in all probability been "pumped" there from the gingival crevice, by the manipulation of the tooth during the extraction.

Another study which did much to disprove the success of removing foci of infection was conducted by Cecil and Angevine in 1937.¹⁰ This clinical experiment involved the eradication of foci of infection from 200 arthritic patients. Although two patients showed improvement in their condition, seven became much worse following the surgery. The remaining patients demonstrated no permanent change. Cecil and Angevine, both famous rheumatologists, concluded their study with this statement:

"Many of us who originally accepted the theory of focal infection with enthusiasm have watched with interest

and some trepidation its rapid development in the various fields of medicine, but are now wondering if the time has not arrived for a revaluation of the whole theory. Many thoughtful students today question seriously its validity and some are quite willing to throw it completely overboard. . . . Scientific men are becoming a little wearied of the universal acceptance of a theory as though it were an established fact."

Experiments concurrent with those of Cecil and Angevine were conducted by Hench and his colleagues at Mayo's. By the mid 1940's the Mayo group had concluded that rheumatoid arthritis was not related to bacteria, but that its symptoms were, in some mysterious manner, ameliorated by diverse conditions such as jaundice, pregnancy, simple surgical procedures or even by a general anaesthesia *per se*. Perhaps, states Hench, "the surgical removal of a focus of infection, never a 'specific remedy', is sometimes beneficial because it may initiate a helpful biochemical reaction which has nothing to do with germs or immunity".¹¹ By 1948, the Mayo rheumatologists had determined that the denominator common to surgical intervention, general anaesthesia, jaundice and pregnancy was a stimulation of the endocrine system, and more specifically, of the adrenal cortex. Injections of cortisone, a product of the adrenal cortex, soon proved this to be so.¹

CONCLUSIONS DRAWN FROM EVIDENCE

What conclusions can now be drawn from this evidence? First of all, it is obviously quite unscientific to avoid treatment of an exposed or devitalized tooth on the grounds that the patient runs a risk of developing arthritis. Furthermore, we are already aware that the extraction of an infected pulpless tooth may immediately be followed by dissemination of bacteria throughout the bloodstream. Is it not better, therefore, to sterilize, enlarge and fill the root canal, thereby retaining

this tooth, than to risk a bacteremia during its removal? How, with this knowledge now at hand, can we possibly counsel a patient to have all pulpless teeth extracted? By the same token, how can we possibly advise an arthritic patient to undergo full-mouth extraction in the hope that through such drastic sacrifice, the arthritis will be cured? Such tactics belong in the "age of the 100 percenters", a bygone era.

Granted that we have confirmed the safety and reiterated the advisability of root canal therapy, have endodontic methods improved sufficiently to assure the practising dentist of success in treatment? The answer is clearly evident. Through the use of a polyantibiotic paste, rapid and effective sterilization is now a certainty.

ANTIBIOTICS

The first reports of the use of penicillin in root canal therapy were quite discouraging.^{12,13} For a time it appeared that use of the miracle drug was to be abandoned. By 1947, however, Grossman had determined that the ineffectiveness of penicillin was related to the low total dosage employed in a root canal. From this realization it was but a step to the suspending of crystalline penicillin in peanut oil and the concentrating of as much as 10,000 units of the drug into one canal.¹⁴ An encouraging success followed.

Later, streptomycin was combined with penicillin.¹⁵ Today the sterilizing agent, as developed by Grossman,¹⁶ is a compound of penicillin, bacitracin, streptomycin, and caprylate sodium, the overall mixture being suspended in silicone (*Fig. 2.*) It may be assumed that the penicillin and bacitracin kill the Gram positive bacteria which act as a contaminant to the root canal, leaving the Gram negative bacteria and yeasts present to the destructive action of the streptomycin and caprylate sodium respectively.

The results obtained with PBSC are almost unbelievable. In competent hands, PBSC has been routinely found to destroy all bacteria in a root canal with one or two treatments.¹⁷ These results have been verified by repeated bacteriological cultures. Compare the annoyance expressed by the student of dentistry today, if he must medicate a root canal more than once, with the common experience of canal medication in the past. A few years ago, endodontic procedures were a decided chore. Medication was of necessity repeated four, eight, twelve, even as many as sixteen times before a negative culture was obtained. By comparison, an excellent root canal treatment can be completed today in a total of 1½ to 3 hours of operating time. (*Fig. 3.*)

It does not require a long memory to recall the "sniff method" which was used to determine canal sterility. A foul odour emanating from a moist paper point was taken to mean that the root canal was infected. Then, of course, the fact was overlooked that only a very few strains of bacteria produce an odour, and that the canal could still be infected by one of the non-saprophytic organisms. The unscientific basis of the "sniff method" is well demonstrated by our knowledge that 40% of all putrescent root canals are found to be free of bacteria at the time of the first culture.¹⁸ This 40% figure represents not only those cases of gangrenous root canals alone, but also the necrotic pulps with a demonstrable periapical bone involvement. In the past, these dark periapical areas seen in a radiograph have been called an abscess or infection. Today we know that in the majority of these cases, the translucent periapical area is in reality a sterile granuloma. Very few of the periapical granulomas are infected, and most of them, if infected, are accompanied by an obvious fistula.

How can this paradox be explained? On the one hand we are confronted with a root canal which, when open-

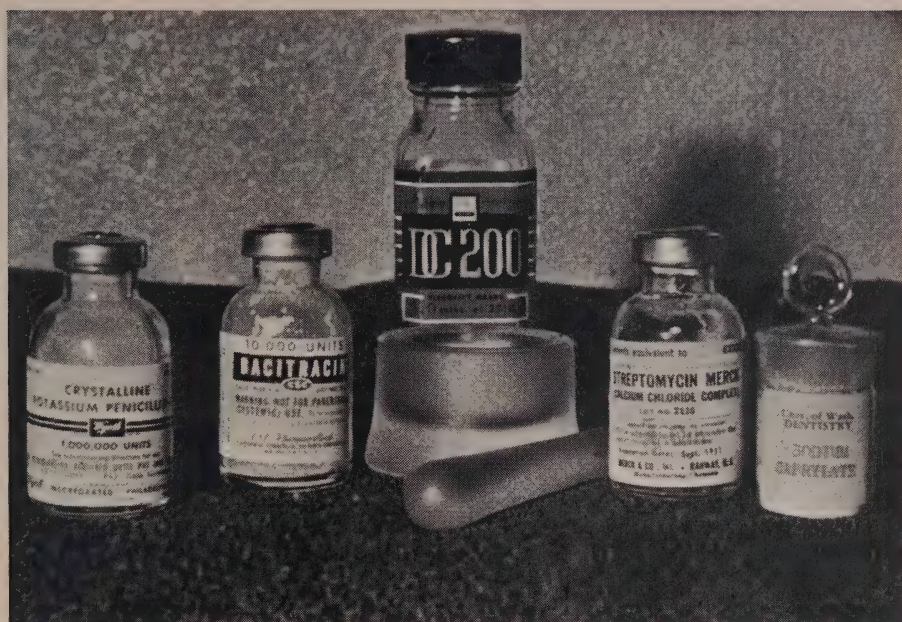


FIGURE 2

The drugs which are combined to produce PBSC; *Penicillin*—1,000,000 units, *Bacitracin*—10,000 units, *Streptomycin* calcium chloride—1 gram and *Caprylate* sodium—1 gram. The entire mixture is triturated in a mortar and pestle along with 3 cc's of *Silicone*—3.0 centistokes viscosity. Store in a wide mouth weighing jar.

ed, is very obviously putrescent. The gangrenous canal is directly connected with an area in the periapical region which is pathologically enlarged at the expense of the alveolar bone. And yet, when the canal is cultured we find that no bacteria are present. If there is no bacterial infection present, why has a periapical area developed in the bone?

At this point it might be well to cease our speculation and review some factors pertaining to inflammation, for these phenomena are all explainable on an inflammatory basis. Studies of Valy Menkin upon the dynamics of inflammation are of very positive value in this connection.^{19, 20} Menkin has cleverly charted the entire chemical course of inflammation from its incipency, through the stage of fulminating necrosis to its termination as marked by repair and regrowth. Following Menkin's pattern, let us envision a dental pulp being irritated by

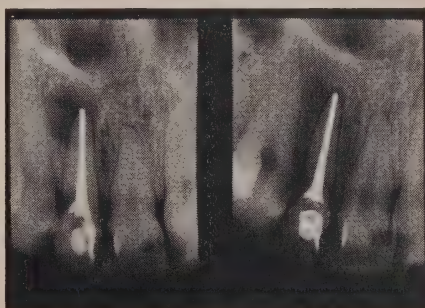


FIGURE 3

The dramatic result which is expected after a root canal is thoroughly enlarged, cleansed, sterilized and obliterated. The "treatment" radiogram (Left) shows a periapical granuloma about the size of a garden pea. *Nine months later* the dramatic resolution of the pathological area (Right) is apparent. No surgery of the area was necessary to achieve this degree of healing in such a short time.

invading bacteria from the dentine. One of the first responses of the pulp tissue to this irritant is the extravasa-

tion of blood elements from the capillary walls. An increase in fluid pressure within the pulp chamber results, and serves to explain the severe pain experienced in pulpitis. If the irritating bacteria are not immediately destroyed, the inflammatory process advances from the leukocyte stage to the round-cell infiltration of chronic inflammation. This switch in the cellular picture is brought about by an increase of acid concentration within the confined area. When the hydrogen ion concentration finally drops to pH 6.5, a product named necrosin is produced from cellular breakdown, and true necrosis is initiated. With necrosis, a dissolution of all cellular matter in the area takes place and frank pus begins to form. Necrosis brings about the destruction of the entire pulp, and, as we have stated, in 40% of these cases the bacteria also are killed by the necrosin.

The fact that the bacteria are dead does not mean, however, that the process will not advance into the periapical tissue. The pulp canal is now a liquified column made up in part of this powerful substance termed necrosin. The necrosin gradually passes out through the apex into the surrounding tissue and again the inflammatory cycle is repeated, this time in the periodontal structures. Immediately the body throws its defence mechanism into gear and sets up a blockade at this point, to confine the irritating necrosis within the pulp canal. This defence blockade we term a granuloma, and contrary to general opinion, the granuloma is not an area infected by bacteria, but serves rather as a sterile wall limiting the necrotic products to the canal.²¹ Boyd²² asserts that, "Granulation tissue is hard to infect because it is mobilized to meet bacterial invasion." We should, therefore, consider the translucent area in a radiogram, when it indicates a granuloma, as a friend and not as an enemy of our patient. The reason that the granuloma continues to exist is because the periapical area is constantly

under irritation from a column of necrotic debris which remains within the pulp canal. If the canal is cleansed of all necrotic material and thereafter completely filled, the periapical granuloma has no further basis for existence. (Fig. 3.) It is then but a matter of time until periodontal membrane and bone have established for the area its original condition of health.

Armed with the explanations offered by Menkin's dynamics of inflammation, we can now easily understand how large periapical areas can develop following traumatic pulp death, i.e., athletic accidents, where bacterial contamination has played no part. (Fig. 4.) Sterile death of the pulp will lead to the production of necrosin just as readily as infected death of the pulp.²⁰ It is the necrosin which sets up the periapical response, not the bacteria.

One can say with a great deal of



FIGURE 4

Radiogram of a tooth which had the pulp devitalized by trauma. The large granuloma is an inflammatory response by the periapical tissue to the constant irritation from the necrotic material from within the root canal. The area is not an "abscess", nor have bacteria or infection played any part in the development of the pathological area.

certainty that we may treat pulpless teeth, including those teeth with peri-apical involvement, and that one may expect a successful outcome in from 96 to 98% of all cases treated.¹⁸ Reporting success to the degree of almost 100% is an invitation to criticism, for consistent 100% success in biological science is an impossibility. Yet, competent endodontists are today reporting this remarkable success in root canal therapy. This is the branch of dentistry which, in the past, has been so notorious for its failures. Yet, with each passing month, endodontia appears to outstrip all other branches of dentistry where extended success of treatment is concerned.

REVIEW OF NEW METHODS

A large share of the credit for such



FIGURE 5

Stainless steel instrument case used for storing and sterilizing endodontic supplies. The case is sized to fit in a drawer of a standard dental cabinet. The clasp (*Bottom*) is designed to be released with one finger, and the cover springs open without effort. (Three cc syringe is shown for comparison).

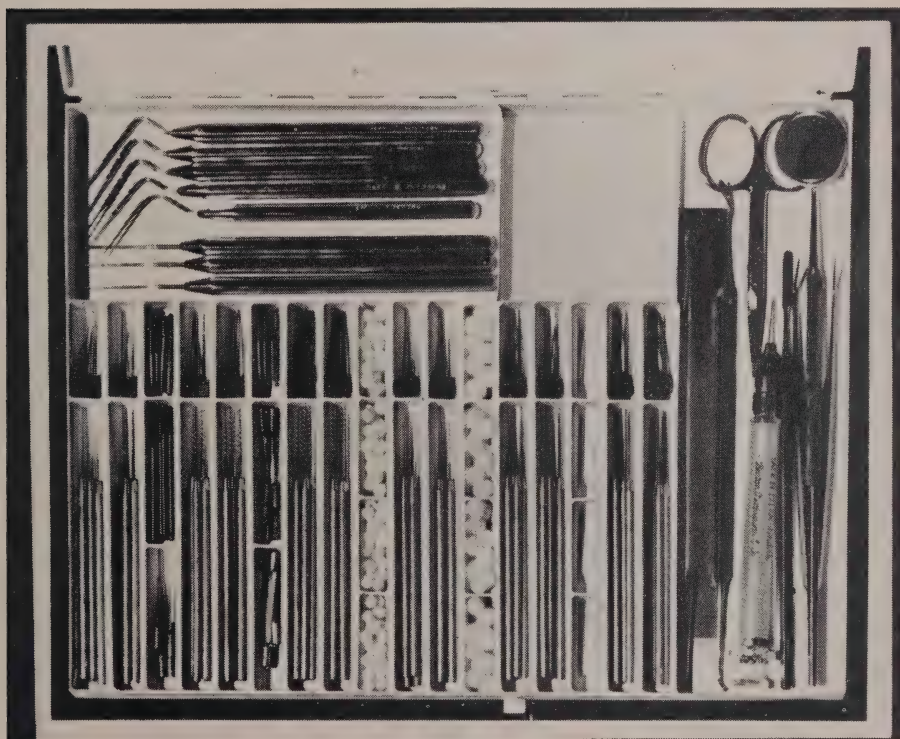


FIGURE 6

Instrument case open (hinge at top of photo). The case contains reamers, files, broaches, burs, pluggers, cotton pellets, paper points, cement slabs and spatulas and general dental instruments. If sterile pliers are used to remove the supplies, the contents will remain sterile for weeks at a time. The case can easily be sterilized in a home cooking oven.

excellent prognosis in root canal therapy must be given to the newer endodontic techniques. Let us review a few of these relatively new instruments and methods.²³

1. An instrument case has been developed which alleviates the once severe problem of storing and sterilizing many tiny instruments. Use of this case brings organization to endodontic procedures, and thereby adds efficiency and dispatch to the treatment. (*Figs. 5 & 6.*)

2. A very satisfactory incubator is now on the market selling for about \$15.00. The instrument may serve the double duty of incubating culture media for endodontia and of warming procaine carpules to body temperature for a less painful injection.

3. Culture media is now being made available free of charge (through the cooperation of one of the state agencies), to dentists residing in the State of Washington. (*Fig. 7.*) Media may also be obtained commercially.

4. An inexpensive method of intra-

muscular injection of aqueous penicillin-and-procaine may be used to control the fulminating acute alveolar abscess. (*Fig. 8.*)

5. Xylocaine, a new anaesthetic, augurs well to replace novacaine in the control of the pain which formerly seemed inevitable during vital pulpectomy.²⁴

6. The immediate root resection, employing an extremely rapid and efficient method, is now becoming quite routine. (*Fig. 9.*) (*Fig. 10.*) Who would have thought some years ago, that pulpless teeth with periapical involvement could be opened, sterilized, filled and resected in the short span of a one hour dental appointment?

7. The filling of posterior teeth is now simplified by the silver point technique wherein silver cones, of accurately graded size, are cemented to place with a radiopaque cement. (*Fig. 11.*)

8. The value of calcium hydroxide for the capping of pulps and pulpotomies has been confirmed in recent



FIGURE 7

Packaging units for two important endodontic supplies. PBSC (*Left*) is supplied in a weighing jar along with an extra bottle of silicone to be added to the mixture if it becomes too dry. Sterile broth culture tubes (*Right*) are delivered free of charge to dentists residing in the State of Washington. This plan is adaptable to any state or province with a well functioning state laboratory.



FIGURE 8

Demonstration of a deltoid injection of penicillin. The needle insertion is quite painless if done quickly and forcibly. Disposable syringe (Lower inset) contains 300,000 units of procaine — penicillin fortified with 100,000 units of crystalline penicillin G, an essential in the initial treatment of acute alveolar abscess.

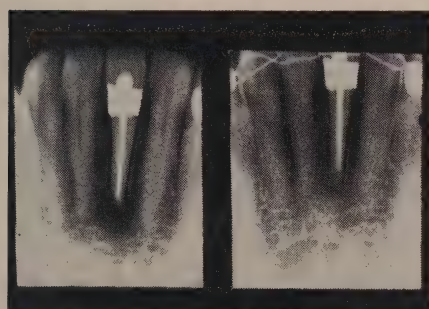


FIGURE 9

Radiograms showing repair following immediate root resection. The canal was enlarged, sterilized and filled and the root resected during a single appointment (*Left*). One year post-operative radiogram (*Right*) proves that the bone has been restored along with new cementum and periodontal membrane. The case is also under orthodontic treatment.

research. (*Figs. 12 & 13.*) Both gross and microscopic evidence of new dentine formation over the exposed area, can be demonstrated in just eight weeks following treatment.²⁵

9. New bleaching techniques currently restore normal colour to badly discoloured teeth in as little time as one dental appointment.²³ (*Fig. 14 & Fig. 15.*)

10. Traumatic injuries to anterior teeth are now handled with efficiency and dispatch.²⁰

After reviewing these many factors, is it any wonder that we see evidence of a rebirth in root canal therapy? No longer should we be baffled over possible replacements for involved or traumatized anterior teeth. No longer need we wrestle with our conscience as we extract the six year molars in eight-year-old children. Our obligation as dentists is to save teeth, as many of them as we possibly can save. Fortunately, powerful therapeutic aids are now at hand, aids which if properly employed will save thousands of teeth.

The dentist who is eager to make endodontic service available to his patients should welcome every opportunity to discover what is new in this rapidly changing area of dental science. He may accomplish this through attendance at refresher and postgraduate courses offered to practising dentists by several dental schools today. If the practitioner does not wish to include root canal therapy in his own practice, he would do well to refer his patients to someone who practises endodontia. The time has arrived to put a stop to the wholesale destruction of the natural dentition. Were the artificial dentures the perfect substitute for natural teeth, then we might do well to reconsider the importance of root canal therapy. We are far from reaching such a point, however. Let us remind ourselves again that it is our first duty to save teeth and not to replace them artificially. Proper endodontic procedures, coupled with a personal desire to

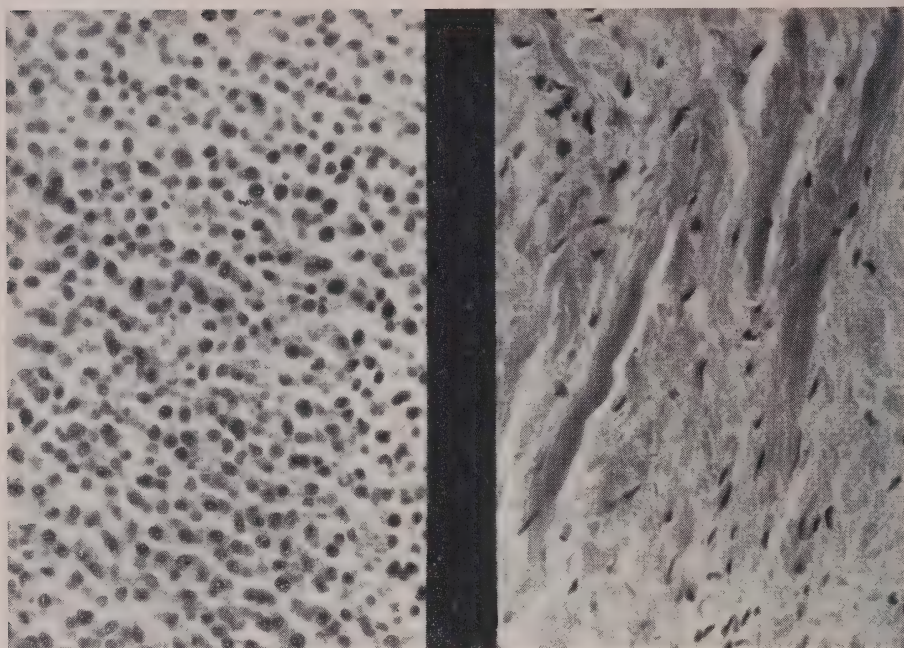


FIGURE 10

Photomicrograph (*Left*) of biopsy specimen removed from a periapical area of chronic alveolar abscess. The round cells and PMN leukocytes are characteristic of chronic inflammation. A rebiopsy (*Right*) taken *eight days later* from the same area, reveals a beautifully organized cell-fiber pattern. It is from this sturdy connective tissue (which has developed from a blood clot) that the future alveolar bone, cementum and periodontal membrane will emerge.



FIGURE 11

Molar root canals filled with silver cones and root canal sealer. Only through such a procedure could this excellent fixed partial denture be salvaged. Complete periapical repair was evident within six months (not shown).

maintain the natural denture, will do much toward the fulfilment of our professional duty.

SUMMARY

1. The advent of cortisone has rendered possible a new outlook upon root canal therapy.

2. Since the theory of focal infection has been shown to have no bearing upon the aetiology of rheumatoid arthritis this theory can no longer be considered a valid excuse for the extraction of teeth with pulpal or periapical involvement.

3. The majority of periapical involvements have been shown to be sterile granulomas, completely devoid of any infecting bacteria.

4. The development of a polyantibiotic root canal sterilizing agent

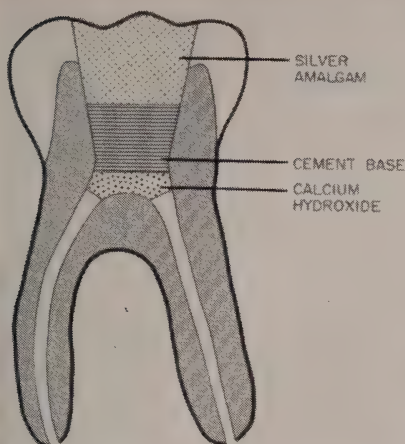


FIGURE 12

Cross section demonstrating the application of calcium hydroxide in pulp capping and pulpotomy cases. The amalgam filling is quite necessary to afford complete protection to the repairing pulp.

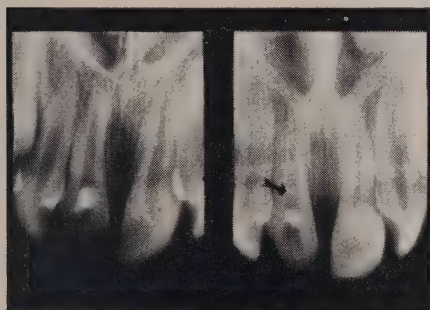


FIGURE 13

Pulpotomy performed on a fractured central incisor for a nine year old boy (Left). In a radiogram taken four months later (Right), the new dentine bridge is easily discernible (ARROW).

(PBSC) has greatly reduced operating time in endodontia. Today, root canals can usually be rendered sterile with a single treatment.

5. "Endodontia may now be termed the most modern and fast-moving branch of dental science." Among the newer drugs, equipment, and procedures which have contributed to this

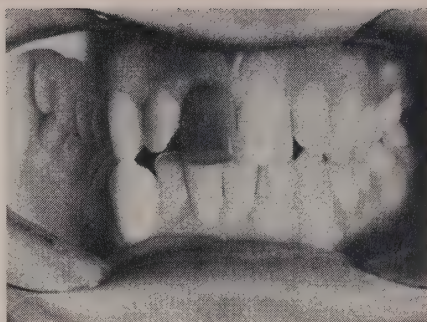


FIGURE 14

Before treatment photograph of a discolored upper central incisor due to traumatic pulp death ten years before. The root canal had been well filled following injury.

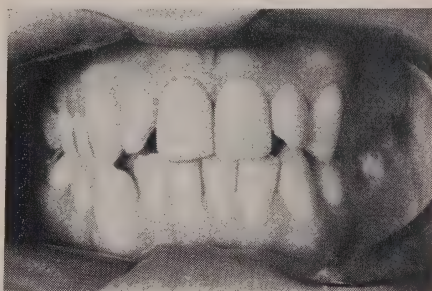


FIGURE 15

After treatment photograph showing the results achieved by bleaching with Super-oxol. Only three applications of the drug were necessary. A heat lamp is used to speed the reaction.

advance are the following:

- (a) A well organized instrument case.
- (b) A small, inexpensive office incubator.
- (c) The use of aqueous penicillin and procaine for control of the alveolar abscess.
- (d) The employment of Xylocaine as a more profound anaesthetic.
- (e) The procedure of immediate root resection whereby a tooth may be sterilized, filled and periapically resected within a single dental appointment.
- (f) A simplified method of filling the root canals of posterior teeth through the use of silver cones.

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Reduction of Prognathism*

by HAMILTON E. SIMMONS, D.M.D., F.I.C.D., Vancouver, British Columbia

AN abnormally protruding lower jaw is a fairly common condition in the general population and often noted by orthodontists in about 2% of patients. True prognathism refers to an overdeveloped lower jaw with a normal maxilla, and false prognathism refers to a normal lower jaw appearing to protrude due to an underdevelopment of the maxilla.

The deformity produced completely alters the facial outline and is always a source of anxiety and self-consciousness to the individual and often produces marked psychological disturbances. There is usually poor dental occlusion, and in extreme cases the teeth do not meet anywhere. This malocclusion results in very poor

mastication and poor food digestion, with resulting gastro-intestinal upsets. Disuse atrophy and caries of the teeth follow; interference in speech is often noted.

The aetiology of true prognathism is not definitely known and many theories, both heredity and developmental, have been thought out in an attempt to explain it. In studies of family background, identical and unlike twins often show what appears to be a direct transmissible characteristic throughout several generations, but occasionally the deformity will spontaneously appear in an otherwise normal family. At the second month of intra-uterine life a relative prognathism is a persistence of this develop-

*A report on the treatment of three cases of Prognathism as carried out by the Maxillo-Facial Unit of the Shaughnessy D.V.A. Hospital, under the direction of Robert G. Langston, M.D., F.A.C.S., head of the division of Plastic Surgery, assisted by R. J. Cowan, M.D., F.R.C.S., and Hamilton E. Simmons, D.M.D., F.I.C.D.

mental condition. Still others consider that some mutation has distorted the normal harmonious growth relationship of the upper and lower jaw, or that some hyperchondroplasia takes place in Meckel's cartilage that lays the foundation for a large lower jaw in later life. Gerhard Link, in Germany, has postulated, and has cases to substantiate his contention, that prognathism is probably the result of environmental factors at work on hereditary tendencies and that there is no such thing as a congenital prognathism. If there is a decrease in the number of teeth in the upper jaw, the upper alveolar ridge is smaller than normal and gives a false prognathism to a very small degree. Now, if the upper teeth have a tendency to tilt backward, an hereditary characteristic, the lower incisors will occlude on the anterior surface of the upper incisors and, with biting movements, this reversed occlusion tends to push the lower teeth forward and lengthen the lower jaw. The forward traction thus exerted on the mandible puts a strain on the ligaments associated with the temporomandibular joints and tends to make them lax, with a resulting hypermobility of the joint. As this traction force is continued, the angle of the mandible tends to straighten out and, in severe cases, the mandible is almost a straight line. As the jaw lengthens and straightens, fewer teeth in the anterior region of the lower jaw occlude, which gives rise to the staircase phenomenon, where the 2nd incisor, bicuspid and 1st molar teeth are at successive lower levels. Any condition such as rickets, extraction, and hereditary abnormalities, producing a decrease in the number of teeth in the upper alveolar ridge can theoretically produce the same sequence of events and end up as a true prognathism.

Hormonal diseases, such as acromegaly and gigantism, produce a type of prognathism due to a generalized bony overdevelopment but in these cases there is abnormal thickness and

density of the bone in contradistinction to true prognathism which retains the normal thickness to length ratio of the bony cortex.

The treatment of this condition has attracted the interest of many orthodontists and surgeons in the last 50 years, and numerous surgical and orthodontic methods of treatment have been devised. Generally speaking, the treatment is usually orthodontic if the patient is under puberty, by the use of bands, dental wiring, traction, and grinding the teeth to reverse the occlusion, etc. This treatment alone has been moderately successful. Over the age of 15-16 surgical correction offers the only satisfactory means of attaining dental occlusion. The surgical procedures are generally of two main types:—

- (a) Osteotomy of the ascending rami.
- (b) Osteectomy, where a section of the body of the mandible is removed.

In 1898 Blair successfully performed an operation for this deformity as suggested by Angle, consisting of the removal of a quadrilateral section of bone from the molar area, bilaterally, and repositioning the anterior segment backward to a normal position and holding it in the new position with interdental wire fixation. This operation has recently been revised in the U.S.A. and used with good results. In 1898 Jaboulay described a resection of the condyle for the correction of prognathism and Petit and Walrath brought out a modification of this operation in 1932, consisting of cutting through the condyle and interposing the fascia between the two fragments in order to produce a flail joint. The gross objection to both these latter procedures is that there is virtually complete disruption of the function of both temporomandibular joints and interference with the action of the external pterygoid muscles which markedly limits normal movements of the mandible.

In recent years an osteotomy opera-

tion popularized by Kostecka in Europe and Reiter in the U.S.A. and by Bowdler Henry in England, with what appears to be fairly good results, has come to the attention of many surgeons. This operation consists of making a blind horizontal saw cut through the ascending rami of the jaw with a gigli saw passed around the ascending ramus through two minute skin incisions, using a curved aneurysm needle. The jaws are then immobilized in the reposed position by cap splints or interdental wiring for a period of 8-12 weeks. Obviously the popularity of this operation is due to its relative simplicity but it is attended by serious disadvantages. Possible damage to internal maxillary artery and mandibular artery and nerve, 7th nerve and parotid gland trauma, and inability to control the upper or proximal fragment, are the more serious ones. Several almost fatal haemorrhages have occurred in this manner, as well as complete 7th nerve paresis. This method is only applicable for small protrusions, because if the mandible is repositioned any great distance the muscles of mastication are thrown out of line, which results in interference with mastication. Another disadvantage is possible section of the inferior alveolar nerve with its resulting anaesthesia of lower lip. Winters et al, however, in a series of 50 cases, state that this anaesthesia is eventually overcome in about 12 months. Hensel has brought out a modification of this method to alleviate some of the disadvantages and has performed it 14 times with good result. In his operation, the ascending ramus is exposed through a curved incision and splitting and retraction of the masseter muscle, and the section performed under direct vision. Ernst, in 1935, proposed transverse section through the ramus, and Moore, in 1944, proposed transverse section through the condyle, both through the intra-oral route. Overriding all of the above described osteotomy operations for prognathism is the danger of non

union of the fragments after sectioning, and the strong possibility of open bite deformity as a result. Attached to the ramus of the mandible are some of the strongest muscles of the body and it is not possible to reposition the mandible any great distance without completely disrupting the line of pull and function of these muscles. When overriding of the fragments at the site of osteotomy occurs, along with muscle spasm, there is shortening in the region of the ramus due to the strong upward pull of the muscles of mastication. With the molar teeth in occlusion, a lever is produced which exerts great downward force in the anterior region of the mandible and may result in open bite deformity, which in many cases is worse than the original deformity. This action can be so great that no appliance will prevent an open bite. Teeth have even been reported extruded from the mandible and maxilla when an attempt was made to overcome the force by inter-maxillary fixation of the teeth.

In recent years the original osteotomy operation by Blair, of removing a section of bone from the body of the mandible, has been advocated by many plastic surgeons in the U.S.A., namely, Dingman, Kazanjian, Henschen, and Padgett. This technique has many advantages: the operative site is easily accessible, the muscles of mastication are not disturbed, which obviates the possibility of open bite deformity. The only glaring disadvantages associated with it are the sacrifice of teeth, the danger of disrupting the inferior alveolar nerve, and contamination of the site by the necessity of opening into the mouth. This latter complication has been eliminated by a two-stage procedure introduced by Dingman in 1944 and further cases of prognathism corrected by other workers using this procedure have given uniformly good results.

Three cases of prognathism treated by the Maxillo-Facial Unit of Shaughnessy Hospital are presented with discussion of a new osteotomy technique

used in two of the three cases. The third case was corrected using a modification of the two-stage technique devised by Dingman in 1944.

CASE I

The patient was a white male, age 20 years, well developed physically, but suffering from the physical and mental results of a disfiguring protruding lower jaw. This appeared to be a congenital condition, growing slowly more pronounced as the patient matured. It had become so disfiguring that his comrades in the services had nicknamed him "Chinny" or "The Chin." Unable to conceal his deformity since early childhood, he had developed an abnormal inferiority complex, accompanied by a reluctance to mix with others socially. This had brought about a hopeless outlook on life. Still possessing a normal dentition, he could not masticate his food properly because his teeth did not occlude. The lower incisor teeth were more than half an inch anterior to the uppers. The only point of contact was in the 2nd molar region on a lingual cusp of each side. This was the only reason his mandible did not completely encircle the maxillary arch. Due to his inability to chew his food properly, he developed minor digestive disorders early in life. His medical history showed frequent visits to the M.I.R. to obtain relief from indigestion. Because of the advanced position of his mandible in relation to his maxillae, the patient could not speak properly; his enunciation was poor. His inability to control his tongue and lips properly during speech resulted in his slobbering embarrassingly. He found difficulty in controlling drooling and functional noises during mastication. His unfortunate abnormality had become a dominating feature in his life, stamping him indelibly with marked psychological and physiological results. Medical examination showed the patient to be in reasonably good health. He was somewhat underweight but

well developed physically. He showed signs of self-consciousness because of his facial disfigurement. It, therefore, became desirable to reduce the mandible backward to a more normal relationship with the opposing maxilla.

ORAL EXAMINATION

He was in possession of all but two of his teeth. There was only minor dental caries present. Unworn by use, his teeth were normal, clearly showing the developmental nodes and grooves. The gums were soft. The teeth were in good alignment but were erupted beyond the normal for his years. He seemed to have an excessive flow of saliva.

Impressions of his teeth were taken by the use of Zelex and models made and mounted in an articulator for study purposes. It was found that reasonably normal occlusion could be arrived at by moving the lower arch posteriorly 9/16ths of an inch. This was accurately measured on a piece of metal cut to the exact size for later use. The metal taken from the occlusal x-ray film packet was used, as it was easy to manipulate, cut and sterilize. This was used as a guide in measuring the length of the cut to be made in the ramus later during the operation. Metal cap splints were then constructed to fit the models in their new, near normal relationship and mounted in the articulator. Two occlusal planes were incorporated into their construction, one on each side in the bicuspid region. These were opposing each other in the form of inclined planes. The upper, about $\frac{1}{4}$ of an inch long, ran downward and forward while its opposite member on the lower arch of similar length ran upwards and backward. This was designed in order that if it became difficult during the operation to obtain the exact position we hoped for, a compromise could be accepted, bringing the opposing inclined planes together, which, with the help of elastic traction, would gradually bring the mandible to the desired position. A locking device was in-

corporated so that when this position was arrived at the mandible could be secured firmly and held rigidly in the new position indefinitely. Provision was made for feeding through the space left by the missing teeth. These splints were cast in silver and highly polished so as to maintain a degree of cleanliness. The patient's teeth were cleaned and the cavities filled in preparation. The splints were then cemented on the teeth the day before the operation. Red copper cement was used because of its mild antiseptic qualities and strength. It resists the action of the saliva and does not readily absorb the juices of the mouth. It will preserve the teeth beneath it and is non-irritating to the gingival tissues.

The patient was carefully instructed as to what could be expected when he came out of the anaesthetic. This was done with a view to avoiding strain on the splints as much as possible by receiving the patient's cooperation rather than creating a feeling of panic, when he awoke to find his jaws secured together.

TECHNIQUE OF OPERATION

The operation should be done under general anaesthetic with endotracheal nasal tube, in order that the mouth may be left free for manipulation of the mandible as needed. Throat pack can be placed in and removed just before final reduction of the jaw into position. The drapes are arranged so that the patient's face may be examined readily, exposing one side at a time. A line is traced on the patient's cheek parallel to the plane of occlusion and extending from the corner of the mouth backwards across the masseter to the tragus of the ear. This is to be used later as a guide in making the cut across the ramus of the mandible.

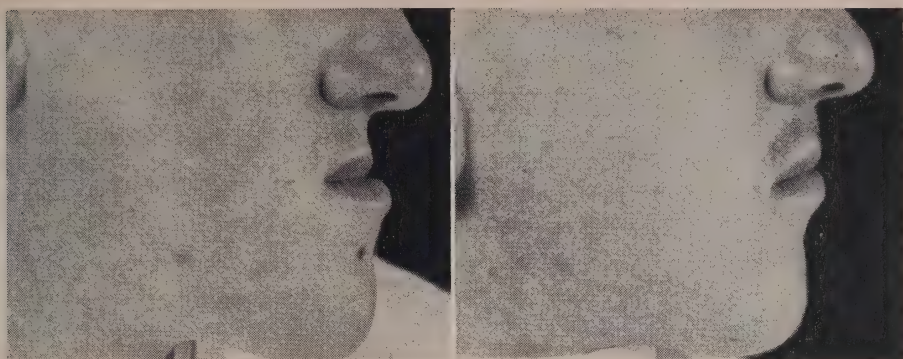
The operation for this type of reduction of prognathism is done entirely from the outside. The approach is through the skin along the lower ramus of the mandible and the only

important structure that is to be avoided is the facial nerve. The facial artery and vein may be encountered but these are of little importance if divided.

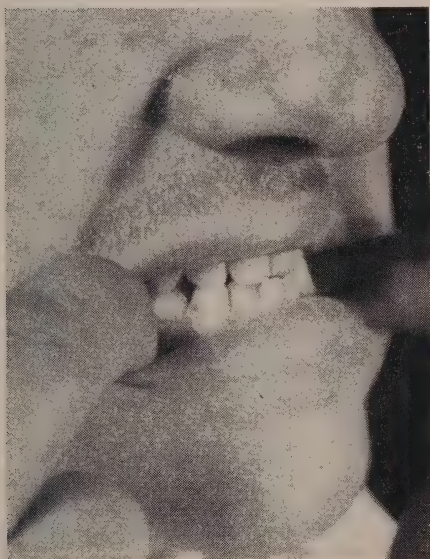
The incision is made just below the border of the mandible in the region of the angle, extending from immediately in front of the lobe of the ear and carrying forward to the mid-mandibular region. The skin is undermined and the superficial fascia is cut through to expose the mandibular border. Dissection is then carried up along the outer border of the bone, raising all of the tissues including the lower branches of the facial nerve and the anterior border of the parotid. In this way, the base of the coronoid process is made visible and the sigmoid notch is exposed. A line is taken horizontally across the ascending ramus of the mandible and marked on the bone in the same plane as the dental bite. The amount of push back to the mandible is then measured from the posterior edge of the bone forward and a vertical line is dropped from the horizontal line of the bone. Before the cuts are made in the bone, it is usual to drill two holes to take the wires. The osteotomy is then done—one horizontally and one vertically—removing the small triangle of bone which is freed. The osteotomy is quite satisfactorily done with a dental drill, although a Gigli Saw could be used.

The mandible is mobilized backward and the new position held by stainless steel No. 26 wire being put through the opposing holes. The wound is then closed in layers and the skin closed without drainage.

The head is then turned and the same operation done on the opposite side. After the surgery has been completed, the mandible is then brought into the desirable position allowed for by the construction of the cap splints. The securing wire ligatures are wrapped around the metal lugs or the bolts placed in, as the case may be, securing the lower jaw in its new position against the maxilla. This latter step



Case 1



Case 1. Post Operative

should be easy and requires only a minute or two if the splints have been accurately constructed.

The mandible should be kept immobilized for from 8 to 12 weeks.

Feeding

The patient must be kept well nourished. Food must be so prepared that it can be easily swallowed; liquid or ground-up so that it will be of a mushy consistency. The food should be warm and varied. He should have at least 2500 calories a day. He can have pro-

tein as well as anything else. Vary the diet—milk, eggs, Horlicks, grapefruit, fruit juices, canned food, and preparations such as “baby foods” can be used.

Mouth Hygiene

Irrigate always after each meal with a suitable mouth wash, such as Glyco Thymolene or liquor antisepticus alkaline in warm water. Pot. Permanganate or Sodium Bi-carb. can be used as alternatives. The patient can help keep his splints clean if his toothbrush is cut in two horizontally, making it half width. The dentist can clean the splints periodically with a rubber cup in his handpiece, using pumice and sodium perborate half and half and made into a paste with a drop or two of glycerine and water.

CASE II

Thirty year old male, admitted to Shaughnessy Hospital July 1951, complaining of epigastric pain, nausea, vomiting, with some weight loss over the last year. Diagnosed as a duodenal ulcer and treated medically with excellent result. At the same time the patient raised the question as to whether or not anything could be done for his large, protruding lower jaw. This he felt to be a great social handicap and because of his poor dental occlusion he was not masticating his food properly. He stated that his lower jaw had always been large, as long as he could remember, but that his deformity seemed to be increasing, espe-

cially after having a bilateral fracture of jaw at age 17.

Examination revealed an obviously prognathic jaw with only two teeth occluding and the upper and lower incisors separated by $\frac{3}{4}$ of an inch. He talked with a deep voice that had a distinct nasal quality. The prognathism in this case seemed to be a significant factor in the aetiology of his duodenal ulcer and a bilateral osteotomy was decided upon, in an attempt to reduce his deformity.

The same technique was used in this case as in the previous one, with a single difference. This case was freed from his splints after six weeks' immobilization. There appeared to be good clinical and functional union at this time. X-ray showed favourable positioning of the bone sections so the splints were removed. Immediately the jaws were released the bite opened up, gagging on the molar teeth and the upper fragment was pulled upward and backward by the action of the temporalis muscles and inward by the external pterygoids. A second operation to try to draw these fragments back downwards proved unsuccessful. Slow traction was then introduced by means of wire passed through the upper fragments and through the gonial angles, extending downward and backward and attached by elastic to a headcap. Three weeks of this continuous type of pressure failed to im-

prove the position, even with a further thirteen weeks of immobilization. To improve this open bite condition, and the patient's appearance, special dentures have been constructed. In spite of the abnormal position of the upper fragment, bony union seems to be developing clinically and radiologically. The patient has full range of mandibular movement without any functional distress.

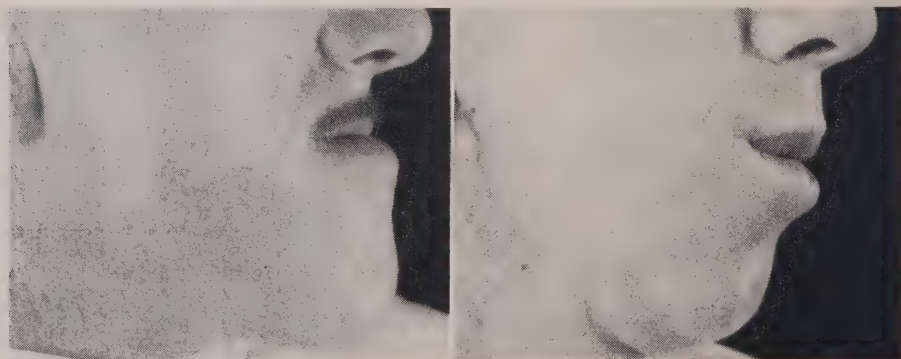
CASE III

History

Patient a white female aged 24 years. Physically normal, this girl is suffering from the disfiguring results of protrusive mandible. A clever girl, well educated and holding a good position, she finds her abnormality a great social handicap. As far as can be determined, her condition is congenital and probably of hereditary origin.

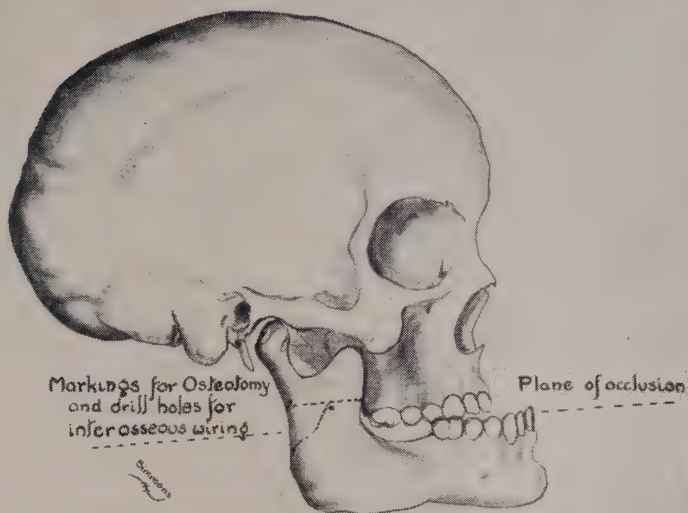
Oral Examination

Clinical examination shows the patient to be in reasonably good health. Her weight is good. She is in possession of all of her teeth and they are in reasonably good alignment. The teeth do not occlude except in the second molar region. Her upper teeth close nearly half an inch inside the lower anteriors, spreading gradually on both sides until they contact in the second molar region with the upper teeth biting on the lingual cusps only of the lower teeth. This brings the lower an-



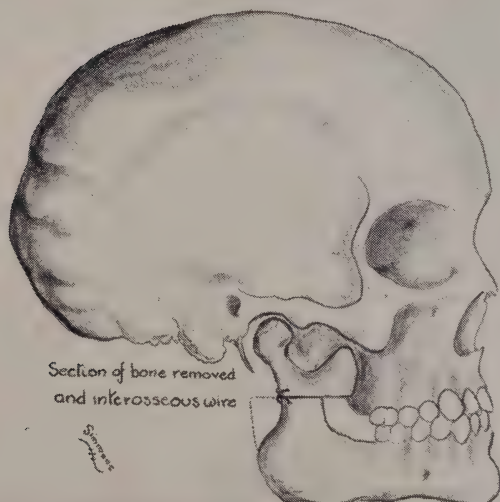
Case 2

Pre. Operative

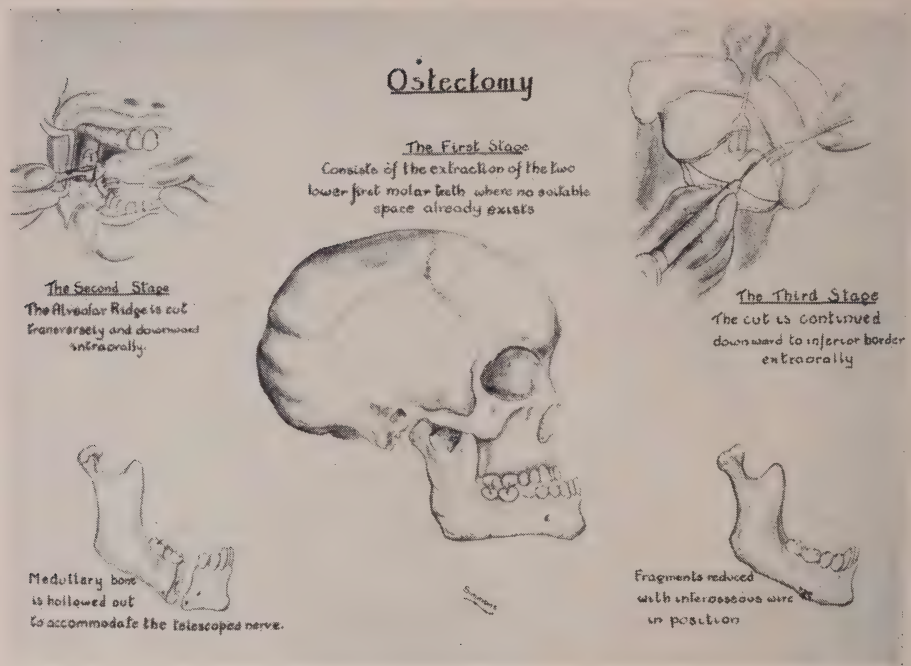


Case 1 and 2

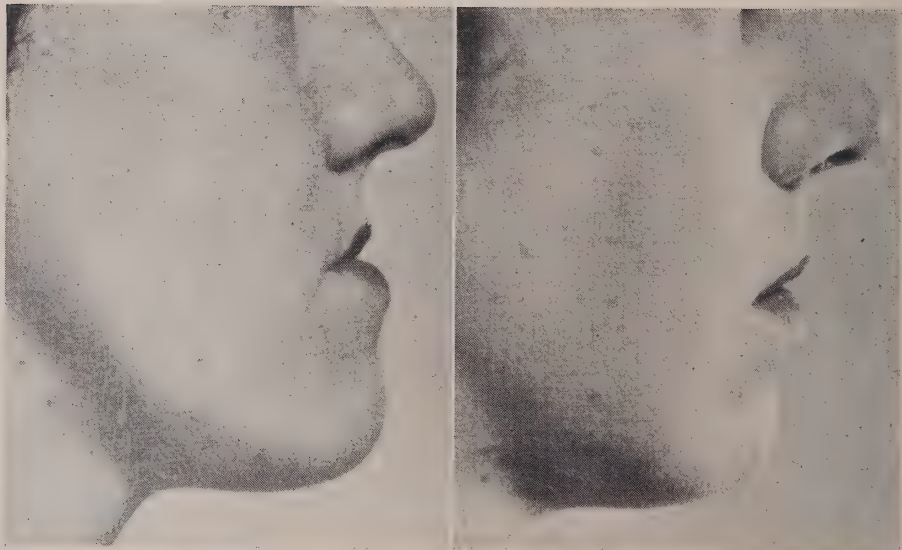
Post Operative



Case 1 and 2



Case 3



Case 3

teriors in buccal occlusion, giving the mandible a wide appearance as well as protrusive. X-rays show no apical pathosis, very little dental caries and a firm, high alveolar ridge.

Preoperative

Impressions were taken of the teeth and models made up and mounted in an articulator according to their exact position in the patient's mouth. The lower model was then cut loose and moved backwards until it was in a reasonably normal relation to the opposing maxillae. An accurate metal measure was then cut to record the exact distance retracted. This was to be used later to record on the body of the mandible the exact size of the Osteectomy.

Technique of Operation

The method decided upon was that of Osteectomy, or removal of a section of bone from the body of the mandible. The operation described is a modification of the method introduced by Harcha in 1912, New and Erich in 1941, and improved upon by Dingman in 1944. It is Dr. Reed Dingman's three stage operation that was finally decided upon, with a few slight changes.

The procedure consists of, first, removal of the two first molar teeth, later, removal of a section of bone from the body of the mandible without cutting the inferior alveolar nerve or compounding the wound intraorally and, finally, reducing and immobilizing the mandible.

Chief advantages of this type of operation are: undisturbed muscles of mastication; troublesome anaesthesia can more readily be avoided; and the possibility of infection from oral contamination is eliminated. The exposure possible during the second and third stages of the operation permits extreme accuracy in outlining the section of bone to be subsequently removed. Disadvantages of the technique lie in the extreme difficulty in keeping the mandibular nerve and blood vessels intact during the remov-

al of the bone and, subsequently, in the manipulating of the anterior fragment into position during reduction. There is also a slight rotating of the head of the condyle in the temperomandibular joint, due to the shortening of the transverse distance between the mandibular molar areas. The distance between the mandibular molar areas becomes slightly shorter as the posterior fragments are moved medially to contact the anterior fragment after it has been moved backward. This has not seemed to prove a clinical disadvantage, however. There has been no complaint from the patient of discomfort in the temperomandibular joint.

Operation

FIRST STAGE — The first stage, a relatively simple one, can be done under local anaesthesia as an out-patient. It consists of extracting the two lower first molar teeth, one on the right and one on the left. This should be done with a minimum of trauma. Every effort should be made to preserve the lingual and buccal plates of bone. The patient is then dismissed and a period of five or six weeks is allowed to lapse before the second stage is performed. This allows for healing of the tooth sockets.

THE SECOND STAGE, like the first, is done under a local anaesthetic. The areas where the first molar teeth were extracted are blocked off with cotton rolls and kept as free from saliva or contamination as possible. An incision is made along the crest of the alveolar ridge and gingival margins of the adjacent teeth. The mucoperiosteum is elevated from the buccal and lingual surfaces and the bone exposed to a depth slightly further than the depth of the alveolus of the extracted tooth. The metal marker is then placed on the bone and the exact width of the section to be removed is marked with some fluid, such as methylene blue. Using a 701 fissure bur, or a bone bur of equivalent size, in a right angle dental handpiece, the bone is then cut transversely and downward across the alveolar ridge. The cut

should end about where the normal apex of the tooth would be, in order to avoid injury to the alveolar nerve. X-ray of the area will serve as a guide but full precaution should be taken not to go deep enough to traumatize or sever the structures in the canal. The cuts should be carried right through from the buccal to the lingual, but the bone is not removed at this stage. Having completed both cuts, mesial and distal of the area marked, the flaps of soft tissue are then carefully sutured back into place. No drainage is necessary. There is little reaction from this stage. The sutures can be removed after a week has elapsed. Four weeks are allowed for healing. During this second four-week interval, impressions are again taken of the patient's mouth and models poured up.

Metal cap splints are then constructed to the ideal position which it is hoped will be the end result in occlusion. These splints are constructed with two locking units for immobilizing the mandible against the maxillae quickly and efficiently. It should be remembered here that since the teeth have never met before in occlusion they have no natural facets to guide them into a normal centric relation. Therefore two sets of occlusal guide planes are constructed here, one set on each side in the bicuspid region. These oppose each other in the form of "V" shaped inclined planes interlocking when the jaws are brought together in their new position, which is then secured by the locking units. These cap splints must be individually designed and cast to fit the case at hand and must be sturdy enough to hold the teeth accurately in position during the course of healing. Silver lugs are attached inconspicuously on each side and at the front of each splint, in order to allow for traction by rubber bands, if necessary. The cap splints are then cemented into position in the patient's mouth a day or two before the final stage of the operation. Red copper cement is used because of its antiseptic qualities and durable

consistency. The use of these cap splints with their opposing inclined planes, places the mandible in the optimum position from which orthodontic treatment can be entered upon when the operation has been completed and the splints finally removed.

After the necessary appliances have been constructed and cemented into position, the patient is then hospitalized, ready for the third stage of the operation.

It is our opinion that endotracheal anaesthesia by way of a nasal tube is preferable to local anaesthetic for this operation. Before preparing the operative field the proposed site of the incision is marked on the patient's skin with methylene blue. This helps to avoid confusion when the patient's head is draped and the mouth covered. An incision is made about 1 cm. below the inferior border of the mandible in the selected area. The soft tissue is carefully dissected back, avoiding the mandibular branch of the facial nerve. Through this incision the lower border of the mandible is exposed. The periosteum is then carefully reflected upwards and laterally until the cuts in the bone from the second stage are identified. A No. 701, or a surgical bone drill, is then placed in the straight dental handpiece and the cuts are extended through the cortical plate only, down to the inferior border. A horizontal cut is then made joining the two vertical cuts at the inferior border. A No. 6 round bur is then substituted in the handpiece and two holes drilled from the buccal to the lingual, one on each side of the Osteectomy site, and just above the inferior border. These are for the passage of the 22 gauge stainless steel, or tantalum, wire which is used to approximate the bone fragments when the Osteectomy is completed. A small chisel is then inserted into the horizontal cut and with a twisting motion the buccal cortical plate is carefully raised, exposing the mandibular nerve and vessels. The medullary portion of the bone is then hollowed out, or countersunk

into the immediate vicinity of the nerve, to permit of a resting place for the nerve trunk to telescope into when the bone is reduced into its new position. After excision of the lingual bone up to the nerve the entire block of bone above the nerve is then removed, care being taken not to open up into the oral cavity. This is comparatively simple because of the preparation done in the second stage. The sections are then wired securely together to prevent slipping or upward riding due to muscular action. The wire is twisted tightly and cut short with the end bent into the posterior round hole, out of the way. It has not proven necessary to remove these wires later. The wound is then closed in layers and a small penrose drain left in place in the wound for twenty-four hours.

When both sides have been completed the patient's mouth is exposed and the splints brought into their intended relation and temporarily secured. New and Erich advise a waiting period of twenty-four hours after surgery before bringing the splints into occlusion, in order to avoid respiratory difficulties. We did not find this necessary. The splints were brought together and the two locking bolts placed loosely into position, completely immobilizing the mandible. A small metal screwdriver was then hung on a cord around the patient's neck, to be handy in case it proved necessary to free her. The recovery nurse was shown how to undo the two little bolts by a simple twist of the screwdriver. This did not prove to be necessary.

It is noted that anaesthesia of the lower lip resulted from the operation. Two years later this is slightly improved. This may have been due to a severing of the nerve during manipulation in reducing the posterior fragments, or simply due to oedema of the nerve trunk. This has not proven to be a great handicap to the patient and it is hoped that in time it will disappear. We know of one other similar

case where sensation entirely returned after three years.

The site of Osteectomy is selected only after a careful consideration of both the local and general conditions. The area to be used is determined by a detailed study of the articulated models of the patient's teeth. The ideal site seems to be that distal to the second bicuspid tooth in order to avoid injury to the mental foramen and nerve. The selection may, however, be influenced by existing edentulous areas in either the pre molar or molar regions. If the first molar tooth is present and there are no other edentulous areas on that side, it must be sacrificed. This loss is not serious when one considers that the reduced mandible closes up the space after the operation. Where teeth have already been lost, the site can be used instead. The section of bone can just as well be removed from the second or third molar regions, although the technical difficulties increase slightly as you go back from the first molar area. In cases where there is a deviation present as well as a prognathism, a wider section of bone must be removed on the side opposite the deviation, in order to correct it in the final reduction. The width and shape of the piece of bone to be resected is accurately predetermined by the careful study of the plaster casts and is dependent upon the degree of prognathism and the degree of opening or closing of the bite necessary to obtain optimal occlusal relationship.

Where the plaster models of the patient's teeth show that reasonably good occlusion could be expected postoperatively, it is felt that the osteotomy should be the choice of operations. If, however, the teeth are in poor alignment and reasonably good occlusion could not be arrived at without postoperative orthodontic treatment, it is felt that the Osteectomy technique would be preferable.

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A Method of Dental Examination

by BRIGADIER E. M. WANSBROUGH, O.B.E., M.M., E.D., D.D.S., F.I.C.D., Ottawa, Ontario

IN RECENT months considerable interest has been shown in various types of dental examinations. Since 1949 the system here described has been used by the Royal Canadian Dental Corps for the Examination on Enrolment and the Routine Examination, which is a preliminary to the planning of treatment. The former is important for assessing post service entitlements and is frequently used for purposes of identification.

Basically, these two types of examination are much the same. In the Examination on Enrolment all conditions are noted e.g. areas of erosion or abrasion, whether or not they require restoration. One bitewing film of each side is required and, while not a comprehensive survey, will usually disclose caries present and give a general picture of the degree of alveolar support. In the Routine Examination all abnormal conditions that would require treatment, or in any way affect the treatment plan, are noted. Two bitewings of each side and periapical views as required are taken.

The Routine Examination is recommended for use in clinics of the R.C.D.C. and is felt to be readily adaptable to civilian practice.

The method embraces (a) a Routine Examination using mouth mirror and explorer, adequate illumination, posterior bitewing roentgenograms and, when indicated, periapical views; (b) certain more highly specialized examinations when such are found to be indicated by the Routine Examination. These consist of complete examination, using mouth mirror and explorer, adequate illumination, thorough roentgenographic survey and, when indicated, percussion, pulp vitality tests, transillumination, study casts and laboratory tests.

By this method then, if the case is

simple, the Routine Examination should suffice. If the case is complicated, the Routine Examination will indicate what further special examination is required.

Fig. 1 shows the Card containing the outline of the Routine Examination. This is kept in the cabinet so that it is a simple matter to follow the procedure laid down rather than rely on memory. The Card system is also used for any special examinations.

ROUTINE EXAMINATION CARD

1. Chief complaint (if acute, immediate treatment; otherwise note in patient's own words)
2. Soft Tissue
 - (a) Lips and Cheeks
 - (b) Tongue and Floor of Mouth
—note abnormalities only
 - (c) Palate and Throat
 - (d) Gingival Tissues
 - (e) Subgingival—circuit with periodontal probe
 - (f) Oral Hygiene—note if neglected
3. Hard Tissues
 - (a) Circuit 1 (with explorer)
note caries, faulty restorations, missing and supernumerary teeth
 - (b) Circuit 2 (with dental floss)
note loose contacts or overhanging margins
4. Radiographic
 - 4 bitewings and periapicals where indicated
5. Further examination
Indicate if periodontal, prosthetic, crown and bridge examination required
6. Treatment plan _____

In the following breakdown of the Routine Examination it will be noted that the numbers and letters correspond to those on the Card.

1. The first concern is the patient's chief complaint. If it is acute, immediate treatment is given, otherwise it is noted on the chart.

2. Now the examination proper is begun by a systematic check of the soft tissues; (a) Lips and Cheeks, (b) Tongue and Floor of Mouth, (c) Palate and Throat. This is felt to be particularly indicated because of the present appreciation of the high incidence of oral malignancies and the importance of their early diagnosis. Many of these will be missed if the examination is confined to teeth and gingival tissues alone. Where abnormalities of this type are found biopsy is indicated.

(d) This part of the gingival inspection covers only what can be observed visually, e.g. recession, inflammation, enlargement, presence of calculus, exudate, haemorrhage or ulceration.

(e) The subgingival check, with the periodontal probe, is only a rapid circuit to determine the presence of pockets, not their depths or locations. If pockets are present a notation is made to this effect, and a Periodontal Examination would normally follow. In the Examination on Enrolment, where pockets are present, they are described as follows: under 4 mm. to be considered as shallow; over 4 mm. as deep. Pockets in only one or two different areas are noted as isolated and numerous pockets in different areas throughout the mouth as general.

(f) Oral hygiene is only noted if neglected.

3. (a) In examining the hard tissues, the 1st circuit is made with the explorer, and caries, faulty restorations, missing and supernumerary teeth, etc. are all entered on the diagram.

(b) Similarly, after the second circuit (with dental floss) any loose contacts or overhanging margins are noted.

4. The radiographic examination consists of the molar region and one of the bitewings of each side, i.e. bicuspid including the distal of the cuspid. Periapical views are taken where indicated.

5. From the Routine Examination is determined what type of further examination, if any, is required. In some cases all the findings from the Routine and special examinations can be noted on the one chart form; in others where findings are more extensive, separate records will be required for each examination carried out. In any case, only those abnormal conditions, which might have a bearing on the treatment to be given, are noted.

6. With all the information at hand, a treatment plan is formulated and set down.

Fig. 2 shows a Routine Examination with treatment plan (6) on the Service form available. Again numbering corresponds to that on the Card.

The Routine Examination described above has the following advantages:

- (a) Being conducted from a card, essential points are quickly checked and none overlooked.
- (b) A minimum of time is involved.
- (c) There is a minimum of writing, as only abnormalities which might effect the treatment are noted.
- (d) No special chart form is required.

A *Dental Category Card* is provided each officer and man and, to a large degree, establishes priority of treatment. Any revision in category as a result of treatment rendered is entered on the Card and signed by the Dental Officer.

The dental classification is as follows:

Category 1—Those requiring

- (a) Treatment of traumatic injuries
- (b) Treatment of acute infection
- (c) Extractions
- (d) Fillings, where the carious involvement demands immediate attention; and

DENTAL RECORD - C.A.F.B. 465

ROUTINE EXAMINATION

ZC 2874
Official Number

Capt
Rank or Rating

SLOAN, P.I.
Name and Initials

ARMY
Service

34
Age

TYPE OR PRINT INFORMATION IN BLUE OR BLACK INK

Patient's right

Patient's left

Date 27 May 49

Overhanging Margin

20
Dental Coy. No.

G. Doc Capt
Signature and Rank of Operator

Date	Tooth Treated	Description of Treatment	Operator's Initials and Rank
3(b)		All contacts loose	
4.		General reduction of alveolar crests	
5.		Periodontal and Prosthetic	
6.		Replace 3 D-A restors 6 MO-A Complete periodontal treatment	
	Operative: / 4	O - A	
	/ 5	DO - A	
	3 / 3	LA - A	
	1 /	GI with acrylic resin venser	
	/ 2	M - S	
	Prosthetic Appliance		

Caries—Outline defective tissue. Do not fill in space.
Missing teeth—Indicate by a line drawn mesio-distally through diagram.
Use abbreviations, sketch and fill in all restorations.

ABBREVIATIONS:

DENTURES:

TREATMENTS:

M Mesial
D Distal
I Incisal
Ra X-ray

O Occlusal
Bu Buccal
L Lingual

A Amalgam
Ce Cement
S Synthetic Porcelain
G Gold
P Porcelain
Ac Acrylic

F Foil
I Inlay
C Crown
J Jacket
Br Bridge
X Extraction

Specify Materials
PUU Partial upper
PLD Partial lower
CUU Complete upper
CLD Complete lower

Describe Treatment Given
RC Root Canal
V's Vincent's Angina
Pe Periodontia
Misc Miscellaneous

C. A. F. B. 465 - 250M-12-48 (17s2) H.Q. 224-21-B465

Fig. 2

(e) Complete dentures.
Category 2—Those requiring
(a) Partial dentures;
(b) Less involved fillings;
(c) Bridges; and

(d) Periodontal treatment.
Category 3—Those requiring
(a) Routine Prophylaxis; or
(b) Filling of uninvolved pits and fissures.

The Need for Scholarships in Dentistry

by ROY G. ELLIS, D.D.S., M.Sc. (Dent.), F.D.S.R.C.S., Toronto, Ontario

Prepared for the Endowments Procurement Committee of the Faculty of Dentistry—applicable to all dental colleges.

A FEW years ago a large corporation in the United States made a survey of its thousands of employees and found that "Scholarship appeared to be the most significant single index of success."

In every community in Canada, whether large or small, urban or rural, there are young men and women of scholarship calibre who for one reason or another are denied the opportunity to prove their ability in higher education. Frequently, the reason for the lack of opportunity is directly or indirectly associated with financial need.

It is difficult to believe that in this enlightened age a potentially rich source of precious ore would be left unturned because of the lack of financial backing to exploit it and yet all around us promising natural human talents are being denied development because of the lack of financial resources.

The President of the University of Toronto referred to the need for assistance in his Annual Report to the

Board of Governors and the Senate of the University in June 1948. He indicated that "approximately 8% of the student body were assisted financially (during 1947-48) by academic awards." "On the other hand," he continued, "in the United Kingdom, despite the stringency of public and private financing, over 60% of the students enrolled in Universities are in receipt of financial aid.

"University education has not been immune from the effects of the inflationary trend and dental education, frequently classified as the most expensive to the student within the whole University program, is no exception. It is therefore quite possible that some talented students, who would seek admission to dentistry, are influenced adversely by the heavy financial commitments involved and the very limited number of scholarships and awards available, particularly in the early years of the course. This situation presents a challenge to those of us who have benefited from a University education."

FOOD FALLACIES

Consider the following fallacies, so obviously contradictory—'bananas are fattening' and 'bananas are good for reducing'. Each contains an element of truth. Compared, weight for weight, with other fruits bananas have a relatively high caloric content. The caloric requirement of any individual depends on many factors including, for example, his size and activity. If his total food intake provides more than his requirement, he will gain weight. No individual food can be held responsible. On the other side of this discussion, bananas provide, in addition to calories, useful amounts of essential minerals and vitamins. Because they are quite a satisfying food, they may be useful in a diet designed for weight reduction but they have no weight reducing quality in themselves. Beliefs that other foods have 'fattening' or 'reducing' properties should be considered in the light of these remarks.—Nutrition Division, Dept. of Health and Welfare, Ottawa.

"We wouldn't mind the inevitability of death and taxes if only they came in the order named."—Wall Street Journal.

The Forum

DENTAL EDUCATION AND ITS INFLUENCE ON THE HEALTH OF THE CHILD

by STEWART A. MacGREGOR, D.D.S.

Assistant Professor in charge of the Pedodontic Department, University of Toronto
Résumé of paper presented at International Dental Congress July 1952—*International Dental Journal*

(1) Statistics the world over indicate that the children of today need more and better dental attention.

(2) The present dental health status of our children has been brought about because of many factors:

(a) In the past, large amounts of money and the services of many have been devoted to the search for newer and better material and equipment necessary for restorative measures, but not enough thought has been given to research directed along preventive lines.

(b) The evolution of dental education has had an influence on the attitude of the average dental practitioner towards the care of children.

(i) The First Era in dentistry was one of self-instruction where interest centred mostly around restorative dentistry and relief of pain.

(ii) The Second Era in dentistry was one wherein dental education was carried on in medical schools with dentistry finally breaking away from the medical schools and establishing a dental school in 1840 in Baltimore. Instruction centred around techniques with some thought given to medical subjects.

(iii) The Third Era—the dental engine was invented and dental practice became lucrative. Private schools came into being and instruction centred mainly, if not entirely, around mechanics. There was keen competition for students. The more mechanics that a school taught, the more students it attracted. This competitive spirit gov-

erned the type of curricula and the teaching leaned more and more to the mechanical with no thought given to basic sciences.

(iv) The Fourth Era — Sir William Hunter made an attack on American Dentistry calling attention to the seriousness of "oral sepsis." Private schools were forced to become faculties within universities and the teaching of basic sciences became a reality.

(v) In 1934 the Curriculum Survey Committee of the American Dental Association gave us the percentage of time spent on each subject. In 1934 the Committee recommended that the teaching of Prosthetic dentistry should involve 23.33 per cent of the student's time but in 1941 the same Committee found that the teaching in this subject had now reached 25.94 per cent of the student's time, while the teaching of such subjects as Pedodontia, Periodontia and Orthodontia were still quite insignificant.

(vi) Basic sciences were being taught and adequately too, but little thought was given to the teaching of their application. The student delved deeply into the field of basic sciences in his early years. In his fourth year he wondered why all these basic sciences were taught, for no one had shown him their application to the symptoms manifested in the mouth of the patient. Thus he forgot his early training and devoted time and efforts towards becoming a mechanic.

(vii) This mechanical training all through the years of progress of dental

education in America has instilled in the student's mind a sense of value for such services that involve the use of a material or mechanical appliance. As a result, he graduated with a feeling of confidence when it came to setting a fee for a denture, a gold inlay, or a porcelain jacket crown, but with little confidence to charge a fee for an examination or consultation. Unfortunately, this attitude on the part of dentists generally has influenced the attitude of their patients. When a child needs an examination and the parents need some instruction in proper child dental health care, the dentist, because of his education, feels that such a program is not economically sound. The parent on the other hand because of dentistry's attitude in the main, does not appreciate services that do not involve a technical procedure or the use of expensive material. The result is the neglect of the child. So it would seem that dental education has been responsible for the mechanical outlook of the dentist and this mechanical approach to dentistry has influenced the economics of practice, which in turn has influenced the child-adult patient ratio in the present dental offices.

(3) Apathy of governments, the public, and medical and dental professions in respect to dental health of children has had an influence on the progress of research in preventive dentistry.

(4) In the past, the leaders in the field of dentistry for children recommended such time-consuming methods of managing children as tours of the office and rides in the chair, etc. These procedures are neither necessary nor wise, but unfortunately this teaching has been responsible for the general practitioner avoiding to work for children. It has been found that working under such conditions, dentistry for children is not economically sound. Thus the child is neglected, because the dentist directs his efforts towards

such remunerative procedures as the construction of prosthetic appliances.

(5) The planning of dental education for the future must include a more important place in the curriculum for basic sciences and their application to preventive practice through a clinical orientation course.

(6) Subjects such as Oral Diagnosis, Pedodontia, Periodontia and Orthodontia must occupy a more prominent place in the curriculum.

(7) From a public health point of view with respect to dental personnel and the present dental needs of the public a wiser plan would be to consider auxiliary services to take care of prosthetic services, thus leaving more time for the dentist to carry on a preventive practice. This will extend his services to a larger population and as a result will bring about an era wherein more people will reach old age with their natural dentition.

In conclusion then, if full denture prosthesis continues to be a part of dental services and remains as lucrative as it is today, no matter how we revise the curriculum towards the training in preventive practice, the young graduate will sooner or later be attracted to this phase because of the economic appeal and the possibilities available for the use of a technician to do most of the work. In short, little hope can be held for the future generation reaching old age with their natural dentition just so long as the fee for prosthetic appliances so greatly outweighs the fee for any service of a preventive nature. Thus in order to bring about a state of good dental health for our children, it will be necessary for the dental profession to do considerable planning for the future, realizing as it is done that the dental education of today determines the type of dentist of tomorrow, which in turn governs the dental health of the future.

"Study without thought is vain; thought without study is dangerous" and "to know what we know and know what we do not know is understanding."—Confucius.

BELL'S PALSY FOLLOWING LOCAL ANAESTHESIA

by P. J. STOY, B.D.S., F.D.S.R.C.S. Eng., and G. GREGG, M.D., M.R.C.P., D. Phys. Med.

Condensed from British D. Jour. Dec. 4, 1951

"BELL'S PALSY" following local anaesthetic injections for dental operations is not common. Very few cases have been reported in detail and various theories of its cause have been put forward.

The usual explanation of paralysis following an inferior dental injection is that it is due to too deep penetration of the needle. This results in the anaesthetic fluid being deposited in the parotid gland through which it then infiltrates to act on the intra-glandular portion of the facial nerve, where it causes loss of conduction of the sensory nerve. Sicher (1950) mentions that in some cases the extra-glandular portion of the facial may be involved, as the parotid does not always envelop this nerve where it crosses the retromandibular space. Such a paralysis, however, should not last long, nor would good anaesthesia be expected in these circumstances, as the inferior dental nerve must be a considerable distance away—yet it is found that anaesthesia is usually good. Moreover, Anwandter (1944) made 100 experimental deep injections, depositing the solution as close to the facial nerve as possible, and failed to obtain paralysis in 57 cases. Of the 43 successful ones, only 20 were complete. On 27 occasions the paralysis was only partial. He also found that these partial ones developed slowly, while all but 4 of the complete type developed quickly. He then attempted injection of the facial nerve at the exit of the mastoid foramen by a direct approach through the skin near the ear. Even then he only obtained paralyses in 17 out of 50 cases and all were slow in onset. He suggests that the slow type of paralysis is due to the anaesthetic action of the fluid on the conduction of the nerve and that this action is much more difficult to obtain with motor nerves than with sensory nerves (vide results of direct injection). He further states

that the accidental paralyses met with in dental practice are all of the rapid type which is evidence against the accident being due to the direct action of the anaesthetic solution on the nerve.

The work of Kettel (1947) suggests that Bell's palsy is a pathogenic entity in which the main feature is a "dysregulation" of the circulation which probably takes places near the stylo-mastoid foramen. The result of this upset of circulation is that the nerve becomes oedematous and thus compressed in its bony canal; this causes further restriction of the vascular supply and a vicious circle arises. The speed with which the paralysis begins, its extent and duration, depend on the size of the blood vessel originally affected, the degree to which it was blocked and the rapidity with which the circulation is re-established. In many cases of Bell's palsy there is pain in the ear with colour changes of the drum, symptoms which may be explained as vascular phenomena similar to those causing the ischaemic paralysis.

If Kettel's conclusions be accepted, a paralysis of six weeks' duration following an injection of an anaesthetic solution could easily be explained on the assumption that the solution (particularly its adrenalin content), or even the mechanical action of the needle itself, gives rise to a vasomotor reflex.

From the above discussion it would thus appear that facial paralyses following inferior dental injections may be due, in some cases, to the direct action of the solution on the nerve, but that in others it is the result of a vascular reflex which causes an ischaemic paralysis in the region of the stylomastoid foramen. In the former case the duration of the paralysis is approximately the same length as the anaesthesia, whilst in the latter cases it may be much longer, depending upon the degree of damage to the nerve.

AUTORADIOGRAPHIC AND HISTOCHEMICAL OBSERVATIONS ON THE MINERALIZATION OF TEETH IN RATS AND HAMSTERS OF VARIOUS AGES

by LEONARD-F. BELANGER, Department of Histology and Embryology, University of Ottawa, Ottawa, Canada

Abstract of Article in Journal of Dental Research

An autoradiographic survey of what happens in time to a tracer dose of P32 in the teeth of rats and hamsters of various ages, has been made.

When the initial physical exchange reaction has subsided, a different pattern is seen in the dentine and in the enamel. In the dentine, a thin autoradiographic band appears first near the pulp and ascends to the area of the dentino-enamel junction in time, and disappears, leaving in its wake, a diffuse distribution of radioactivity. The rate of displacement of this band is inversely proportional to the age of the dentine and the movement ceases

in adult tissue. In the very young enamel, a wide band appears in the vicinity of the dentino-enamel junction.

The ability of the enamel tissue to deposit radiophosphate increases with age and maturation of the tissue to a maximum and then decreases rapidly.

After long exposure, weak radiating sources are detected over the ameloblasts and over the odontoblasts.

These facts are correlated with the distribution of total minerals detected histochemically and with some aspects of the organic and enzymic background.

WHAT THE DENTIST SHOULD KNOW ABOUT HIMSELF

by J. C. ALMY HARDING, D.D.S., F.A.C.D., F.I.C.D., San Diego, California

Condensed from F. Rev. of Chicago Dental Society, July 1, 1952

Since psychologists stress the need for the feeling of security as essential to mental health, may I suggest a sound investment program for each of you not yet approaching retirement?

Invest regularly and substantially in yourself. Thus may you establish an enduring practice of the highest type. There are at least four proven ways to accomplish this.

First: By increasing your knowledge and skill through

- a. Further study in postgraduate classes.
- b. Wide reading of dental journals and textbooks.
- c. Habitual attendance at dental meetings and conventions.
- d. Personal research and experimentation.
- e. Contemplation.

Second: By increasing your office efficiency with

- a. Better location and space.
- b. Modern equipment.
- c. Competent office help. (Is your

assistant Certified?)

d. Constant improvement in office management.

Third: By increasing your local prestige by

- a. Activity in church and charitable organizations.
- b. Activity in cultural groups.
- c. Activity (not mere participation) in dental groups.

d. Qualifying as spokesman for groups or movements identified with matters of real merit.

Fourth: By developing prestige in the profession through

- a. Attending major conventions and seminars.
- b. Clinicing and lecturing before such groups.
- c. Contributing articles to dental journals.
- d. Writing textbooks.
- e. Inventing or perfecting dental instruments.
- f. Serving dentistry as an officer or committeeman.

REPORT ON RECENT ADVANCES IN THE PREVENTION OF PERIODONTAL DISEASE

by J. STAZ, D.D.S., H.D.D., L.D.S.

Professor of Dental Science, University of the Witwatersrand, Johannesburg, South Africa

*Condensed from paper presented at International Dental Congress July 1952—International Dental Journal***The control of periodontal disorders.**

Any treatment that is directed towards eliminating causative factors must be based on a recognition of the underlying diseases, two or more of which may be present simultaneously.

The formation of calculus, for example, may be a manifestation of some general systemic disorder. Its removal and the adoption of methods of oral hygiene may alone not be sufficient to prevent the development of a periodontal lesion.

Similarly the importance that has been laid upon the need for early orthodontic treatment, occlusal equilibration and other methods of relieving occlusal stresses requires careful appraisal. It is feasible that those factors responsible for the development of malocclusion may also initiate periodontal lesions and that both these conditions are signs of some general underlying disturbance. In the same way it has been postulated that traumatic occlusion may be an effect and not invariably a cause of periodontal disease (Merritt, 1949).

There is need for a detailed statistical investigation to show (a) the number of cases of periodontal disorders associated with malocclusion of the teeth, (b) the number of cases of periodontal disorders arising after orthodontic treatment, and (c) the number of cases with malocclusion of the teeth (untreated), that show no evidence of periodontitis or periodontosis.

The value of constant gingival massage and friction has received strong support in many quarters, with dubious approval in others. This method appears to treat an effect rather than to remove a cause.

Periodontal disorders are still prevalent and according to some authorities are assuming epidemiological proportions.

Whether this is evidence that the development of these diseases cannot be inhibited or whether it indicates a failure on the part of the dental profession to educate the public in preventive measures is a matter for further consideration.

Résumé

1. A review of the literature that has appeared during the last five years on this subject, indicates that while there is much repetition of established theories, very little progress can be reported on the prevention of periodontal disease.

2. Preventive methods that are advocated include the control of local irritants and functional disorders. Amongst these measures are the establishment of a system of oral hygiene; the correction of malocclusion of the teeth; mouth rehabilitation and occlusal equilibration; maintenance of local tissue tone by gingival massage, friction and stimulation; efficient home care; and correction of dietary and nutritional faults. Systemic factors when detected should be eliminated wherever possible.

3. It is important that the incipient periodontal lesion be recognized in its early stages.

4. Efficient home care, including gingival massage, friction and stimulation, as well as constant vigilance by dentist and patient are necessary to prevent a recurrence after an established condition has been treated.

5. The role of the general dental practitioner is of major importance in the prevention and control of periodontal disorders.

6. It is noted that there is considerable confusion in classification and terminology.

7. It is concluded:—

(a) that "Periodontal Disease" is not

in itself a separate disease entity. It is a symptom complex reflecting the signs of many different diseases, some of which may originate in the mouth while others are of a general systemic character.

(b) that the distribution and prevalence of periodontal disorders indicate either that their development cannot be inhibited or that there is need for further education of the public in the value of preventive measures.

A PROTEST AGAINST RECKLESS EXTRACTION OF TEETH

Condensed from Editorial in Modern Medicine

One of the saddest persons a consultant physician sees is the one whose health and happiness have been injured by ill-advised and profitless extractions. Often the person is utterly miserable because of plates that are not comfortable or cannot even be worn. The situation would not be so bad if the patient had been well rewarded for his sacrifice; he would not be so unhappy if he had been cured of his headache or arthritis but, actually, his original distress remains as bad as ever. Worse yet, any good physician could have told him that, in his case, the removal of teeth could not be expected to do any good. Perhaps the man had rheumatoid arthritis or destructive arthritis following a stroke which so greatly destroyed several joints that no treatment could ever remake them.

There is one type of patient whose teeth should never be removed, if the physician can possibly avoid it—the hypersensitive woman who gags badly if she tries to brush her back teeth. Commonly such a woman is unable to wear dentures, and after a year or two of misery she comes in with three or four sets in her handbag. Often all that ailed her to begin with was a menopausal depression or much unhappiness over a misbehaving husband or a daughter's unfortunate marriage.

There is another patient who should not be promised relief from extraction of teeth: he is the person with tic

douloureux. It is a sad commentary on the level of medical knowledge today that nearly all of these patients, by the time they reach the nerve surgeon who alone can relieve them, have had good teeth removed to no purpose. The physicians who saw them should have known immediately that such extractions would never help.

Another patient who is often asked to sacrifice good teeth to no advantage is the one with migraine. This is a hereditary disease, and in my experience the attacks are very rarely brought on by dental infection. Certainly no physician should ever tell a migrainous woman to sacrifice teeth with the hope that she would thereby lose her headaches.

Another patient who should not have teeth removed is the old man or woman whose symptoms are due to a small stroke. In such cases the removal of teeth will not only fail to do any good but is likely to do much harm. Hundreds of times I have seen such extraction add greatly to the patient's distress and feelings of discouragement, and sometimes I have seen it shorten life. Usually the old man or woman with teeth removed goes downhill and loses a lot of weight. An old person with no alveolar process on the mandible often has difficulty adjusting to the use of plates. I doubt if any of these persons are benefited by extraction, even when many of their teeth were in poor shape.—Walter C. Alvarez.

"To give cotton rolls a pleasant odour and taste, saturate one roll in oil of peppermint and place in bottom of cotton roll jar or holder."

ANNOUNCEMENTS

- **ANNUAL WINTER CLINIC, ACADEMY OF DENTISTRY, TORONTO**, Royal York Hotel, Thursday, November 27.

Limited Attendance Clinics:—

Dr. O. C. Applegate—Ann Arbor, Michigan.
Subject: "Complete Denture Prosthesis"

Dr. George A. Morgan—Toronto, Ontario.
Subject: "Oral Surgery"

Luncheon speaker—Joseph McCulley, Warden of Hart House,
Univ. of Toronto.

Those living outside of Toronto apply for detailed program to Dr. W. O. Nursey, 86 Bloor St. W., Toronto.

- **28th ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB** October 23-25, Mount Royal Hotel. Contact Dr. M. L. Donigan, 1414 Drummond St., Montreal, P.Q. for information.

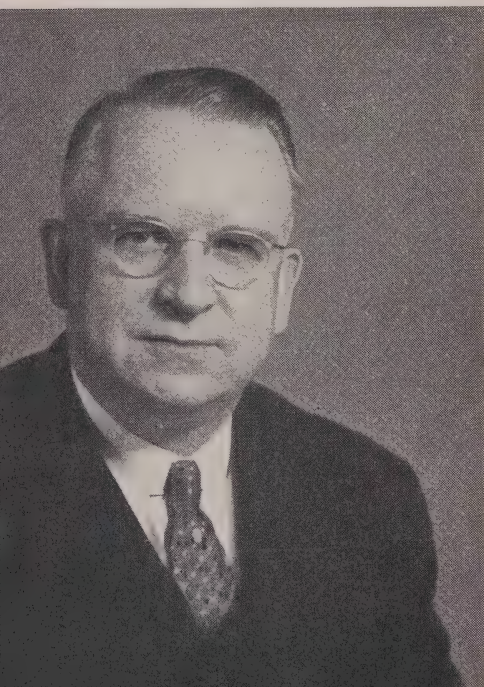
- The **MARITIME DENTAL CONVENTION** is to be held at Keltic Lodge, Ingonish Beach, Sept. 3-5, 1953.

- The **59th ANNUAL MEETING OF THE ASSOCIATION OF MILITARY SURGEONS** of the United States will be held at the Statler Hotel in Washington, D.C., November 17-19, 1952.

- **TEMPLE UNIVERSITY ANNOUNCES POSTGRADUATE COURSE IN OCCLUSO-REHABILITATION** for one week commencing February 2, 1953. Enrolment limited to 25. Cost \$300.00.

Apply to Dr. Louis Herman, Temple Univ. School of Dentistry, 3223 North Broad St., Philadelphia 40, Pa.

- **DR. SPENCER ATKINSON TO DELIVER GRIEVE LECTURE:—** The Officers of the Orthodontic Section, Canadian Dental Association are pleased to announce that Dr. Spencer Atkinson, Pasadena, Cal., will deliver the Second Grieve Lecture, entitled "Teeth, Health and Happiness," in Convocation Hall, University of Toronto, on Monday, November 10.



The Lecture has been arranged to coincide with a meeting of the Great Lakes Society of Orthodontists, in order to permit the attendance of a number of Dr. Grieve's former associates in that Society.

In view of the educational nature of this address, invitations will be extended to representatives of home and school organizations and health workers interested in Child Welfare.

Dr. Atkinson is internationally renowned as an orthodontist and scientist, particularly for his studies in facial growth, and in recognition of his outstanding ability has been chosen by the American Association of Orthodontists to receive the 1953 Ketchum Award.

As the Grieve Lecture is the only one sponsored by Canadian dentistry, it is anticipated that a large and representative group of members of the dental profession and their friends, will be in attendance on this occasion to hear this highly informative lecture.

DR. SPENCER ATKINSON



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Editorial

ST. LOUIS THE CITY OF DENTAL CONVENTIONS IN 1952

During last month, at least, St. Louis, Missouri, might well be called the city of dental conventions since the following organizations held meetings there, meetings lasting from one to three days: Advisory Board of Dental Specialists; American Academy of the History of Dentistry; American Academy of Periodontology; American Association of Dental Editors; American Association of Dental Examiners; American Association of Dental Schools; American Association of Public Health Dentists; American College of Dentists; International College of Dentists; American Dental Assistants; American Dental Hygienists Association; American Denture Society; American Society of Dentistry for Children; Association of American Women Dentists; International Society of Gold Foil Operators and the National Association of Seventh Day Adventist Dentists. Various fraternities and alumni groups also held meetings. However, the greatest gathering was the four-day sessions of the American Dental Association held September 8-11.

At this great gathering there was a total registration of over eight thousand including the wives of the dentists and guests. Representatives from many parts of the world were in attendance—England, Australia, South Africa, Honolulu, Mexico, Lebanon, Finland, as well as Canada.

One of the outstanding features of this convention was an address by the Hon. Harold E. Stassen, President of the University of Pennsylvania, a former governor of Minnesota. On two occasions his name has been placed in nomination for the Republican candidacy for President of the United States. Mr. Stassen spoke on "Dentistry and Freedom" and pointed out that complacency on the part of the health professions could lead to government control, that a complacent profession is ripe for socialization. He said that the real freedom of a country can be gauged by the independence of the health professions, that the members of the major professions, such as the dental and medical professions, must be independent, resourceful citizens and not be subservient to the men in

control of government through any scheme of socialized dentistry or socialized medicine.

Mr. Stassen said there are two major phases involved in safeguarding the future independence of the dental profession. One is the alert insistence upon excellent progress in the dental service provided for the people. The other is the recognition of the manner in which the status of the dental profession is interrelated to the freedom of other professions and groups within the country. An intelligent awareness of the gaps now existing in dental service to the people should lead directly to constructive steps to fill these gaps, said the speaker; that this is a responsibility of the dental profession which can be neglected only at the peril of the standing of the profession.

The speaker felt that much greater progress should be made in the examination of school children and in the work of preventive dentistry; and that more vigorous and thorough efforts should be made to combat the dental quack. It was also suggested that a broadened relationship to voluntary insurance plans would be desirable, and that it is time to say now, "How many dentists will be needed ten years from now?"

Mr. Stassen stated that dentistry should be no part of any government, under any system, or under any party. He gave the following six keys to continuing freedom of the nation in addition to the freedom of the profession as a whole.

1. The ownership of basic industries by the citizens and not by the government.
2. Retail stores should be owned by the citizens and not by the government.
3. Large resources of capital should exist uncontrolled by government.
4. Farmers must be in control of their products.
5. Teachers must be free of any government indoctrination.
6. People must be made to work and not loaf, that a loafer's paradise is the Devil's hell hole.

Mr. Stassen's statements will bear careful perusal by every member of the dental profession in Canada and elsewhere.

At this convention the essays, the table clinics, the scientific exhibits, the motion pictures, the television clinics, and the commercial exhibits, were of a particularly high order. The program following the banquet honouring the President, LeRoy M. Ennis, was the finest that this writer has ever heard or seen at a dental convention. This is in keeping with the spirit of St. Louis, the home of the Lindberg trophies, which in number and excellence must be seen to be believed, St. Louis' Forest Park, its Zoo, its Botanical Gardens and many other attractions are in the superlative class. St. Louis claims for itself the culture of the east, the hospitality of the south, the vision of the west and the energy of the north.

At the close of the 93rd Annual Sessions Dr. Otto W. Brandhorst of St. Louis was installed as President and Canadian dentists wish for him and the officers who serve under him the greatest possible success in their efforts to place dentistry upon the pinnacle.

M.H.G.

ROYAL CANADIAN DENTAL CORPS NEWS

The Director General Dental Services, Brigadier E. M. Wansbrough, returned on September 3, from an inspection of R.C.D.C. facilities in the United Kingdom and Europe.

Army Headquarters, Ottawa, recently announced the promotion of Lieut-Col. R. E. Carroll, E.D., C.D., to the rank of

Colonel, and his appointment as Deputy Director General Dental Services.

Colonel Carroll, 54, was born in Toronto, was graduated from the University of Toronto in 1927 and established a practice in Toronto.

Colonel Carroll has a long service career. He served in World War I as a

pilot in the Royal Naval Air Service and the R.A.F. He was appointed to the Toronto Scottish Regiment N.P.A.M. in September 1922 and attained the rank of Major. At the outbreak of World War II he went active with his regiment, later transferring to the Canadian Dental Corps and proceeded overseas with No. 1 Coy. in January 1940. He was appointed Officer Commanding, No. 3 Coy. C.D.C. May 1, 1942 and served in Sicily, Italy and Northwest Europe. Returning to Canada in June 1945, he was appointed District Dental Officer, Military District No. 2. On the formation of the R.C.D.C. (A.F.), October 1, 1946, he was appointed Command Dental Officer No. 13 Coy. R. C. D. C. (R. C. A. F.). He relinquished Command of No. 13 Coy. in April, 1949,

on his appointment as Deputy Director of Dental Services, A.H.Q.

Colonel and Mrs. Carroll reside in Ottawa.

Lieut.-Col. G. E. Shragge who was the first Officer Commanding, No. 25 Canadian Field Dental Unit, has returned to Canada from his tour of duty in Korea, and will be temporarily employed in Ottawa.

Dr. Clifford Brown, 27, has been appointed Captain in the R.C.D.C. Capt. Brown attended McGill University and following his graduation in 1950 spent one year of post graduate work at the Children's Memorial Hospital, Montreal. Capt. Brown has been practising in Prince Albert, Saskatchewan.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

The London Congress:—The F.D.I. Congress held in London July 19-26, was a most successful one due to four years preparatory work on the part of the British Committee. The final registration figures were 4,356 dentists registered representing 76 countries. The Congress was held in the Royal Festival Hall and the appropriateness of this building for the purpose contributed much to the success of the meeting. The organizing committee under the Chairmanship of Dr. E. W. Fish, C.B.E., with Mr. G. H. Leatherman as Secretary, and Mr. Alan McLeod as Treasurer received great credit which they justly deserved.

From beginning to end the Congress can be described as international in every aspect. The meeting together of friends in dentistry was an experience in itself. Language barriers were broken down by the employment of expert interpreters so that addresses given in English, French, Spanish, Italian or German were immediately heard through ear phones supplied at each seat in the visitor's own language.

At the opening ceremony the Ambassadors of the countries represented at the Congress were in attendance. The President of the International Dental Federation, Dr. Ch. F. L. Nord of Holland, addressed the meeting pointing out the aims of the F.D.I. in holding a Congress every five years. He, then, inducted Dr. E. W. Fish as President of the Congress. Dr. Fish said that he was deeply conscious of the honour of presiding over the Congress and had been stimulated and encouraged by the interest of the British Minister of Health who had consented to give the opening address. The Rt. Hon. Iain MacLeod, M.P., Minister of Health,

spoke of the interest of his government in dental health and expressed the hope that the Congress would greatly further the effort to reduce dental disease.

Following the addresses a roll call of nations was conducted by the Secretary, Mr. G. H. Leatherman. It was most inspiring to see delegates rise in their places as the name of their country was called, each of which was greeted with loud applause. To many present the possible number of countries represented was hardly realized previously.

At the opening ceremony the F.D.I. prizes were presented. The Miller Prizes for eminent services to international dentistry were presented to Dr. B. Orban of Colorado Springs, U.S.A.; Dr. S. Palazzi of Milan, Italy; and Dr. A. E. Rowlett of Leicester, England. For outstanding work in the prosthetic field the Villain Prize was awarded to Professor A. Gysi of Zurich, Switzerland, who because of advanced age was unable to attend the Congress.

The Scientific Program was formally opened by the famous scientist, Sir Alexander Fleming, F.R.S. In his remarks Dr. Fleming said he had been informed that dentists used more penicillin than any other branch of the medical profession. The presentations, both essays and clinics, were representative of all phases of dentistry and at the same time by personnel representing the various countries. Canadian dentistry was represented on the program by Dr. S. A. MacGregor of Toronto; Brigadier E. M. Wansbrough, D.G.D.S., Ottawa; Dr. J. H. Johnson, Toronto; Dr. H. J. Merkeley, Winnipeg; and Dr. R. J. Godfrey, Toronto.

The greatest innovation of the Congress was the Telekinema which created

a great deal of interest. This arrangement permitted operations to be televised at a distance and shown on a large screen 18 ft. by 13½ ft. with every detail of the operation clearly relayed.

Several countries had exhibits in the Dental Health Exhibition, of which Canada was one. This exhibition was held in an adjoining hall and was thrown open to the public.

The Dental Trades arranged a colourful exhibition. The latest equipment and materials manufactured in France, Germany, Sweden, Holland, Great Britain, and the United States were displayed on two full floors of the Royal Festival Hall.

In addition to the full program of essay presentations, clinics, table demonstrations, and scientific films taking place at the Royal Festival Hall, delegates also had the opportunity of studying British dental school and hospital methods. On arrival at any of these dental institutions carefully planned displays and clinics were found in progress.

One of the amazing features of the Congress was the elaborate social program. It seemed that all institutions related in any way to dentistry co-operated in an attempt to see that all members of the Congress were entertained. The British Dental Association gave a cocktail party in the upper restaurant of the Royal Festival Hall. The Royal Society of Medicine were hosts at their home on Wimpole Street and during the evening Diplomas of Honorary Membership of the Section on Odontology were presented to Doctors H. Trendley Dean (U.S.A.); R. G. Ellis (Canada); Adolf Ross (Switzerland); and Professor P. O. Pederson (Denmark). Her Majesty's Government held a reception for delegates at the Tate Gallery which was largely attended. The highlight of the social program was the Congress Ball held at Albert Hall which has been the scene of many notable events over the years and which again took on a most colourful and festive appearance with over 3,000 guests present. The London County Council held a reception at the County Hall, Westminster. The Senate of the University of London also gave a reception to the delegates. The Congress Banquet was held at Grosvenor House, presided over by Dr. E. W. Fish, C.B.E., and addressed by the Brit-

ish Minister of Education, Miss Florence Horsbrough, in response to a toast to Her Majesty's Government. The London Symphony Orchestra gave a concert in the Royal Festival Hall. In addition to this extensive social program a fleet of motor coaches left the Festival Hall each morning to take visitors through the English countryside and to various places of historical interest.

At the closing session both Dr. Nord, as President of the International Dental Federation, and Dr. Fish, as President of the Congress attempted to thank all those responsible for the success of the Congress. Both admitted the difficulty of adequately doing so for undoubtedly the meeting had been the most successful Congress ever held. The following resolutions were presented and unanimously approved:

1. From the Armed Forces Section:

That the Armed Forces Section of the XI International Dental Congress consider it essential that all countries with Armed Forces should establish a dental service to be responsible for the dental health of service personnel.

2. From the Section on Dental Materials:

That this Section on Dental Materials of the XI International Dental Congress, having regard to the increasing need for basic research in the science of dental materials and their standardization are in favour of a much wider degree of international exchange and cooperation in these subjects and recommend that steps be taken to explore the possibility of establishing an international bureau on these subjects.

3. From the Section on Dental Education:

That the Federation Dentaire Internationale investigate the possibility of establishing academic reciprocity for admission to higher degrees among the dental schools of the world and encourage the interchange of professional teaching staffs on an international basis.

Decision was made to hold the 1957 Congress in Rome, Italy.

On the final evening the F.D.I. Banquet was held at the Savoy Hotel at which time Dr. Oren Oliver of Nashville, U.S.A., presided, after being installed as President of the International Dental Federation for the ensuing five year term.

NEWS FROM THE PROVINCES

MANITOBA

Dr. H. J. Merkeley of Winnipeg has returned from Britain where he presented a clinic on "Lower Dentures and some new thoughts on the Accessory Muscles of Mastication" before the International Dental Congress.

BRITISH COLUMBIA

The final meeting of the Executive Committee of the B.C. Dental Association was held in July, with President Ingledew in the chair and members of the old and new committees present.

A request for information on launch-



Photograph showing Dean Ernest Charron of the Faculty of Dentistry, University of Montreal, having conferred on him the Fellowship in Dental Surgery of the Royal College of Surgeons of England by Sir Cecil Wakeley, President of the Royal College of Surgeons of England. Standing to the left is Sir William Kelsie Fry, Dean of the Faculty of Dental Surgery of the Royal College of Surgeons of England.

The Convocation held on July 18, 1952, was attended by a large audience, among whom were Brigadier and Mrs. E. M. Wansbrough and Dr. and Mrs. Don Gullett from Canada.

ing a fluoridation campaign for the water supply of an interior city was received, and action taken to respond to the request.

The chairman of the membership committee reported a total of 87 additional members registered, about one third of which were new, and the balance re-instated.

The first meeting of the new executive committee under the chairmanship of the president, Dr. Leslie Marshall of Vancouver, was called upon adjournment of the previous meeting.

The important dental public health committee was appointed, with Dr. R. J. O'Neil, of Vancouver, Dr. N. C. Ferguson of New Westminster, and Dr. L. E. English, of Kamloops serving for two years, and Dr. H. R. Turner of Victoria and Dr. L. B. Alexander of Haney for one year. In future, all such appointments will be for a two year period.

After several years of excellent service, the resignation of Dr. Harvey Johns,

of Victoria, as Editor of the News Bulletin was regretfully accepted. Dr. D. H. Munro, of Vancouver, will succeed Dr. Johns.

Investigation of the Bank Loan system will be carried out during the coming year, under the chairmanship of Dr. J. A. Chambers, of New Westminster.

The October meeting of the **Vancouver and District Dental Society** was the occasion for a visit from the President and Secretary of the Canadian Dental Association. Dr. Ratté and Dr. Don Gullett discussed affairs of the Association, and films were presented to round out the program.

For the November meeting, Dr. Blanchard of Los Angeles, Cal., will be the guest speaker.

Reports from the **Division of Preventive Dentistry** of the Provincial Government reveal continued activity in providing services for remote communities, by

the use of transportable equipment on loan to dentists who have been willing to undertake some of this type of work.
L.G.R.

ALBERTA

Edmonton Dentist Honoured:—Having practised dentistry in Edmonton for more than 40 years, Dr. C. J. Madill was honoured by his friends on August 28, when he was presented with an easy chair upon his retirement from active practice. Dr. H. M. McCaffery made the presentation.

Dr. Madill will continue to reside in Edmonton.—Edmonton Journal.

SASKATCHEWAN

Dental Picture Brighter:—The last fall check-up of the Saskatoon public school

children revealed that 61 per cent of the students required dental service which figure at the end of the school year had been reduced to 11 per cent.

The superintendent of public schools states that the parents of the 11 per cent who still needed dental care were financially able to provide it but had not done so, although they had been notified.—Saskatoon Star Phoenix.

Dental Clinic at Oxbow: A dental clinic for the purpose of conducting fluorine treatments for children three to seven years of age was held early in September in Oxbow.

A public meeting was held in Oxbow, August 26, under the auspices of the Oxbow Home and School Association when the topic was Preventive Dental Service.—Oxbow Herald.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

A Resounding Success:—The adjective has been said to be the enemy of the noun. It is, however, difficult to avoid the use of superlatives in any evaluation of the success of the XIth International Dental Congress. From the memorable opening meeting in the Royal Festival Hall on the Saturday morning and the garden party on the terrace in the afternoon the Congress went with a swing which was itself a tribute to the care which had been devoted to the detailed planning of every part of the crowded program of scientific meetings and social activities. No fewer than 4,358 persons registered as members of the Congress—a figure which greatly exceeded the most optimistic estimate of the probable attendance and one which is likely to stand for many years as a record for any dental meeting in this country. As was to be expected the television of demonstrations on the full-sized screen in the Telekinema was a major attraction, the hall being filled to its capacity of 400 at every session. Another innovation, the three round table discussions on "Control and Prevention of Dental Caries," "Full Denture Prosthesis" and "Orthodontics," was also an undoubted success. And so after many years we in Great Britain have had the satisfaction of staging and carrying through an International Congress to a triumphant end.—Excerpt from Br. D. Jour.

The Dental Estimates Board have issued figures of the amounts scheduled for **Payment to Dentists** during the first twenty-eight weeks of this year and the

corresponding period in 1951. These show that whereas in 1951 the average weekly payments to dentists were approximately £687,650, the corresponding average in 1952, including patients' contributions, £81,320, was approximately £541,000—a drop of slightly over 21 per cent. The figures for 1952 reflect the effect of the charges for dentures but only to a minor extent that of the new charges for treatment, and, while figures relating to one week cannot safely be compared with those for longer periods, it may be noted that payments authorized during the week ended July 12, 1952 amounted with the contributions to be paid by patients to £498,005. A point of some interest is that although the average amount of each estimate dropped from £3-6 in 1951 to £2-8 in 1952, the total number authorized during the latter year was slightly greater than that for the corresponding period in the previous year. These figures suggest that the decline in earnings has mainly affected those parts of the country and those practices in which the proportion of denture work is higher than the general average.

AUSTRALIA

Production of Film by the New South Wales Branch of the Association:—Upon the recommendation of the Post-Graduate Courses Committee, the Executive has decided that a film shall be produced by the Association in 1952, to be entitled "Precision Inlays by the Hydrocolloid Technique." The production of this film has been entrusted to the Post-Graduate Courses Committee.

GENERAL NEWS

Canadian Dentists Honoured at St. Louis:—Dr. Harry S. Thomson of Toronto, Ontario, known throughout the breadth of our land for his brilliant service in the interests of dental health, has brought honour to Canadian dentistry when he was elected to the position of President-elect of the American College of Dentists at its annual session held in St. Louis on the seventh of last month. This is the first time that a Canadian has held this position.

At this time the following Canadians were made Fellows of this College: Dr. Owen Croft of Halifax, N.S.; Dr. George C. Darts of Vancouver, B.C.; Dr. Hugh M. Eaton of Halifax, N.S.; Dr. Gerald Franklin of Montreal, P.Q.; Dr. Henry M. Freeland of Calgary, Alberta; and Dr. Alvin M. Hord of Toronto, Ont.

As is well known, the American College of Dentists accepts into its ranks only men of recognized fine character who have made a definite contribution to the advancement of the profession of dentistry.

We would congratulate Dr. Thomson upon the signal honour which has come to him and we would also congratulate these other Canadian dentists whose services have been recognized by the American College of Dentists.

M.H.G.

Fluoridation Surveys in Canada:—The Dental Health Division and Research Division of the Department of National Health and Welfare of Canada published in July a "Suggested Methodology for Fluoridation Surveys in Canada."

The Chief of the Dental Health Division, H. K. Brown, D.D.S., D.D.P.H., F.A.C.D. points out the following in the Foreword of this publication.

"The growing interest throughout Canada in the apparent benefits in caries reduction associated with fluoridation of community water supplies has been reflected in requests for information and advice received by the Dental Health Division. Because of this interest, and in view of the importance of the subject, it seemed desirable for this Department to provide a guide to the planning and conduct of surveys designed to evaluate effectiveness of artificial fluoridation of water supplies.

"A guide or manual on the methodology of fluoridation surveys will also have undoubted value as a means of promoting uniformity in procedure and thereby ensuring maximum usefulness of the results not only to the community carrying on the survey but in adding to the general knowledge of this phenomenon. Comparisons from community to com-

munity will of course only be feasible if there is a high degree of uniformity in procedure and if methods used are consistently planned to yield valid results when subjected to statistical analysis.

"This memorandum, therefore, attempts to outline the procedures and precautions necessary in carrying on a community fluoridation survey. The bulletin includes reference to the nature of the measurement, some sampling considerations, the selection of children for examination, arrangements for the examinations, the records to be obtained, and analysis of the data.

"Communities may be assured that this Department will continue to be available for advice and consultation on any aspect of the conduct of fluoridation surveys."

American Academy of the History of Dentistry:—The First Annual Meeting of this Academy was held in St. Louis on September 6 when Dr. Arthur H. Merritt of New York was installed as President.

This Academy was formed in order to obtain concerted action among dental historians to aid in advancing the usefulness of the dental profession. Those engaged in research in dental history and in teaching particularly, are conscious of the need for a better understanding of the philosophy of dentistry.

The Academy hopes to offer the means for improving these conditions and for promoting the culture and usefulness of the dental profession.

International College of Dentists:—At the annual meeting of the College held in St. Louis September 7, Dr. Oren A. Oliver of Nashville, Tenn., was installed as President. He succeeds Dr. Ernest Charron, Dean of the Faculty of Dentistry, University of Montreal.

Chosen as President-elect was Dr. William M. Sexton of Bristol, Va.

Other officers elected were Dr. Elmer S. Best of Minneapolis, Minn., Secretary; Dr. Willard S. Bell of New York, Vice-President; and Dr. R. Gordon Agnew of San Francisco, Treasurer.

Fluoridation Gains:—Dr. LeRoy M. Ennis, President of the American Dental Association at the annual convention in St. Louis stated that more than 25,000,000 persons in 656 communities in the United States will be drinking fluoridated water by the end of the year and will be receiving the most effective preventive of tooth decay known to science.

Fluoridation of community water supplies was approved and recommended by the Association House of Delegates two years ago.

Medicine Preserved in China:—The present trend in official circles of the Chinese empire is to turn aside from all the innovations brought to China by western missionaries and other representatives from the United States and Great Britain. Modern medicine is the great exception to this rule. The medical schools and hospitals built up during more than 100 years after models introduced from the west are still functioning although there is a tendency to cut down the preliminary or premedical courses and shorten the years of medical education. Western Medicine is one of the contributions from the West which will be preserved.—Wm. W. Cadbury, M.D., Emeritus Prof. of Medicine, Lingnan Univ., Canton, China.

Old Age:—Maurice J. Tobin, U.S. Secretary of Labor, estimates that by the year 2000 there will be more than 21 million persons 65 years of age and over in the United States.

Health magazine states "It's a matter of scientific record that **A Good Breakfast** will make you feel more on the bit, less easily tired, and this is true of both men and women, regardless of the work they do, be it mental or physical."

By a good breakfast, the magazine means a moderate, balanced breakfast—"somewhere between the starving stenographer's coffee and cigarette and the old-time farm breakfast that ran all the way from fried potatoes to pie."

The medium-size breakfast recommended by nutritionists includes fresh fruit, a whole grain cereal, milk, whole grain bread or toast, and a beverage such as coffee if desired. Such a meal provides the important B vitamins, minerals, and protein which are essential in the first meal of the day.

Future A.D.A. Meetings:—The 1953 meeting of the American Dental Association will be held next fall in Cleveland. The 1954 meeting is to convene in Miami, Florida, and the 1955 convention in San Francisco.

Budget of A.D.A.:—Income of the American Dental Association for 1953 is estimated at \$1,816,705.

The Board of Trustees at the St. Louis meeting recommended a total appropriation for 1953 of \$1,622,279. It was also recommended that the excess income over appropriation of \$194,426 be placed in the restricted reserve fund, which now totals \$1,129,077.

Military Service for Dentists in U.S.A.—Two thousand dental officers will be separated from the three military serv-

ices in the first half of 1953. Replacement must come principally from dentists under 51 years of age who have had no military experience since September 16, 1940.

To bring each new soldier in the Army to a satisfactory state of oral rehabilitation, eight hours of dental work is required.

Dental Student Registration:—There are 12,500 undergraduate students in U.S. dental schools this fall—an all-time record.

New A.D.A. Directory:—An estimated 85,000 members of the dental profession will be listed in the 1953 edition of the American Dental Directory to be available in December, 1952.

National Health Insurance in Canada: "Canada is not ready to embark on a plan of national health insurance but it remains a top government objective for the future, Health Minister Martin told the Commons June 6.

"For one thing, it would cost about \$600,000,000 a year — approximately \$43 for every man, woman and child in the land on the basis of a population of 14,000,000. Canadians already are under a heavy tax burden and the government has to consider whether the extra burden could be met at this time, he said.

"For another, the minister said, Canada did not have the hospital facilities to meet the requirements of such a plan. When it first was suggested, the government believed 65,000 more hospital beds would be required. More than 38,000 additional beds and 433 new hospitals have been provided since then. But the government now finds it underestimated to the extent of 15,000 beds in Ontario alone.

"However, Canada is building the groundwork for the plan, said Mr. Martin. The federal health program is attacking the problems of hospital shortage, disease, trained personnel and the like."—Vancouver Sun.

"Attorney General Nathaniel L. Goldstein joined Governor Dewey June 23 in rejecting proposals to establish a **Dental Group-Insurance Policy** similar to group-health policies. Such a plan, he ruled, would be illegal under New York State law. He said the insurance law authorized the performance of insurance business, not the practice of dentistry.

"In an opinion sought by the State Insurance Department, Mr. Goldstein held that under the proposed dental policy the insured would be limited in his choice of a dentist to those under contract to the insurance company. The insurance bene-

fit contracted for would be the service of a dentist retained and paid by the insurance company, he pointed out. He explained that the state education law 'prohibits any person from practising dentistry who is not licensed to do so and this prohibition includes corporations.'

"Examination and licensing provisions of the law 'are clearly not open to corporations,' he continued. "The result is that a corporation can neither practise dentistry nor hire dentists to practise for it,' he declared. There is only one exception to the education law provision — legally incorporated dental corporations existing and in operation before January 1, 1916, he said.

"Earlier this year the Governor vetoed a bill that would have permitted insurance companies to contract with dentists for dental service benefits to insured persons. 'It would permit insurance companies to go into the business of practising dentistry,' Governor Dewey asserted in his veto message.

"Mr. Goldstein said the proposed dental insurance scheme would interpose an unlicensed entity between patient and dentist as an active and responsible principle. 'The vices of such an arrangement with respect to practice of a privileged

profession entailing a high degree of personal confidence, skill and responsibility are obvious,' he said. He contended that the insurance law, while authorizing insurance companies to conduct an accident and health business, did not provide that such benefits should include furnishing services 'peculiar to the strictly regulated personal professions.' Health insurance, he said, may be written without requiring the forbidden rendition of dental services."—N.Y. Times.

Co-Insurance for Hospital Service: — Co-insurance cut down sharply on needless use of B.C. hospital beds in 1951. Patients who had to pay the token charge last year found they didn't need to stay in hospital as long as patients in 1950, when there was no co-insurance. As a result 5000 more patients got into hospital in 1951. Yet taxpayers generally were spared \$3 million or more in additional hospital deficit to be met from the provincial treasury.

The case for co-insurance appears formidable. Scrapping it is a popular election cry. But is it either good business or good politics if it shifts the burden of people who actually use the hospitals to those who don't?—Vancouver Sun.

IN MEMORIAM

Eugene Lemieux of Montreal, P.Q., aged 82, died August 13. He was graduated from Laval University in Quebec City and served with the Canadian contingent during the Boer War in South Africa. Following the war he practised in Montreal for a number of years. During World War I he took command of the dental department of the military hospital at Ste. Anne de Bellevue. He remained there in that capacity for 20 years, when he retired on pension.

In 1897 he went as one of the Canadian representatives to the Diamond Jubilee celebrations of Queen Victoria.

Dr. Lemieux is survived by three brothers and a sister.

William Greene of Peace River, Alberta, aged 80, died August 28. He was graduated from the University of California and practised actively until 1945, his practice being interrupted by trips to Japan, South America, hunting expeditions, etc.

His prowess at magic used to entertain his younger patients and at one point during the depression he augmented his income by undertaking a travelling magic show in the evenings.

Dr. Greene was one of the first eight

men in North America to fly an airplane and one of the first in the world to manufacture commercial aircraft. He also devoted much time to dramatics. He was one of the founders of the Aurora Skating Club.

The funeral was held September 3 when members of the Masonic Lodge, Elks Lodge and Order of Eastern Star attended, also two members of the Royal Canadian Mounted Police who served as a guard of honour.

Dr. Greene is survived by his widow and one daughter.

William Curtis Pickering of Durham, Ontario, died August 27. He was graduated from the dental school of the Royal College of Dental Surgeons of Ontario in 1901 and practised in Durham until his death. In 1951 he was granted an honorary membership in the Royal College of Dental Surgeons.

He was a member of the Presbyterian Church and also of the Masonic Lodge. He was a Past Master of Durham Lodge, Royal Arch Masons and a member of Mocha Temple Shrine at London.

He was an active bowler and curler for many years.

IN MEMORIAM

Dr. Pickering is survived by his widow and three daughters.

•
D. Angus McInnes of Victoria, B.C., aged 59, died of a heart attack September 1.

Dr. McInnes was a bachelor. He was noted as a soccer, English rugby and lacrosse player in his younger days. He was a member of the Foundation Lacrosse Club that held the Canadian championship for two years. In later years he was an active golfer.

•
Herbert Colborne of Toronto, Ontario, died at his home on August 30. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1900. On graduation he began practice in Toronto but after 15 years went to New York where he practised until 1925, when he again returned to Toronto and continued there since that time. He became an honorary member of the Royal College of Dental Surgeons in 1950.

He is survived by his widow and three brothers.

•
Nelson Stanley Coyne of Toronto, aged 70, died at his home on August 30. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1908 and has practised in Toronto for the past 37 years.

He was well known in his profession taking an active interest in the advancement of dental science. He was active in

his church, in temperance and in political circles until quite recently. He was a member of Calvin Presbyterian Church.

Dr. Coyne is survived by his widow and one son.

•
Roy George Ward of Toronto, aged 63, died on July 13. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1914 and practised in Toronto until his retirement last year.

Dr. Ward was a member of the Lions Club 1920-1940; a member of Wilson Lodge A.F. & A.M. and was master in 1926. He was a member of the Lodge of Perfection and Rose Croix, Scottish Rite.

He is survived by his widow, his mother, one son and one daughter.

•
Mason Jellyman Clarke of Belleville, Ontario, aged 76, died on July 26. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons in 1898 and has always practised in Belleville.

Dr. Clarke was a native son of Belleville. As a young man he was active in sport and in later years was a curler of note. For 25 years he was dental officer for the Board of Education. He was active in his church and had served as warden. He was a member of Belleville Lodge A.F. & A.M. and also of Benjamin Lodge L.O.L. No. 274. He was a charter member of the Belleville Rotary Club.

He is survived by his widow, three sons, Norman of Leaside, Dr. John M. and Francis Phillips both of Belleville. There were also three daughters.

DIRECTORY

Canadian Dental Association Headquarters—234 St. George Street, Toronto, Ontario.

Matters relating to the publication of manuscripts or news items for the English Section of the Journal should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

Matters relating to the French Section of the Journal should be addressed to the French Editor, Dr. G. de Montigny, 400 est Blvd. St. Joseph, Montreal, P.Q.

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Subscription Price of Journal in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

All additions and changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

OCTOBRE, 1952

No 10

Stérilisation des cavités

par P.-E. BELISLE, B.A., D.D.S., Verdun

"The lecturer must not be the ant, collecting all things indiscriminately from all quarters, as provender for his discourses;

Nor the spider, seeking no materials abroad, but spinning his web of speculative doctrine from within himself;

But rather the bee, extracting crude honey from various flowers, storing it up in the recesses of his brain, and submitting it to the operation of his internal faculties, until it be matured and ready for use."⁽¹⁾

C'est ainsi que nous avons puisé dans de nombreuses lectures traitant des possibilités d'obtenir une cavité stérile. Après quelques expériences, nous nous sommes fait une opinion que nous partageons: car notre travail est fait de main d'homme.

Après avoir repassé rapidement la structure de la dent, et le mode d'action de la carie sur la dent, nous étudierons la nature des micro-organismes, la possibilité et la façon de les détruire et, dans le cas contraire, la manière de procéder à la survie de la dent.

Structure de la dent.

Les tissus dentaires peuvent être classifiés en 2 groupes:

1—Calcifiés: — Email. Dentine. Cément. Procès alvéolaire.

2—Non Calcifiés:—Pulpe. Membrane périodontaire, les tissus mous. Pour nos besoins nous étudierons l'email, la dentine, la pulpe.

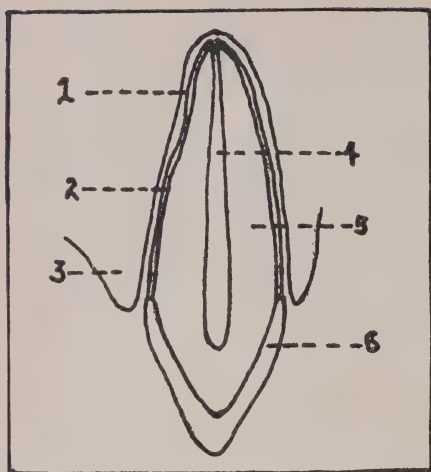
Le tissu avec lequel le dentiste est le

plus familier et sur lequel repose les succès et les échecs de son travail est l'email. Il est généralement défini comme: "recouvrant la couronne anatomique de la dent, et étant la substance la plus dure de tous les tissus humains."⁽²⁾

L'email est composé de prismes cimentés les uns aux autres par une substance interprismatique: le ciment. L'email et le ciment ont presque la même densité, toutefois le ciment se dissout dans les acides. Les prismes de l'email sont le plus souvent parallèles entre eux: il peut se faire que les prismes soient striés, alors ils contiennent beaucoup plus de sels de Calcium et, de ce fait, sont plus durs. La force de l'email ne lui est pas inhérente: elle lui vient en autant qu'elle est supportée par la dentine.⁽³⁾

La dentine est un tissu de soutien fort mais dont la calcification lui laisse une certaine élasticité. Le corps de la dentine détermine généralement la forme de la dent. Elle est composée de canalicules contenant des fibres protoplasmiques — fibres de Tomes — venant des odontoblastes. Dans une dentine jeune, ces canalicules sont remplies d'une substance réellement vivante. Mais avec la marche progressive de la calcification, ces canalicules sont calcifiés et très souvent oblitérés.

La dentine est aussi le tissu le plus sensible et de réaction facile à l'irritation. Quand elle est affectée par un stimulus thermique, mécanique ou chimique, elle a



1—Membrane Péri-dentaire. 2—Cément. 3—Os. 4—Pulpe. 5—Dentine. 6—Email.

la propriété de produire un autre tissu, "la dentine secondaire."

Au joint énamo-dentinaire, les fibres de Tomes, venant des canalicules, s'anastomosent et constituent la première ligne de défense pour avertir la pulpe de toute irritation.⁽⁴⁾

La pulpe est située à la partie centrale de la dent et est formée d'un tissu de soutien contenant les artérioles, les veines, lymphatiques et nerfs. Sa principale fonction est de former de la dentine. A l'éruption de la dent, la chambre pulpaire est très large, mais, à mesure que la dent se forme, elle devient progressivement plus petite. L'autre fonction est de fournir le flot sanguin et l'innervation aux tissus de la dent pour aider à combattre l'infection et à former de la dentine secondaire. A la périphérie se trouvent les odontoblastes, qui sont en communication avec le reste de la dent par les fibres de Tomes, qui sont comme les antennes qui transmettent à la pulpe tous les stimuli.⁽⁵⁾

Le fait que le nerf, l'artère et la veine y pénètrent par le foramen de l'apex expose la pulpe à certains dangers.

Quand un irritant excite les tissus pulpaire, l'artère se dilate et augmente le flot sanguin. Tant que la veine peut transporter au dehors cet excès dans l'apport

sanguin, il n'y a aucun inconvénient. Mais si la pression devient telle que la lumière de la veine à la région de l'apex devient obstruée, il y a congestion, dégénération et possibilité de nécrose de la pulpe.

Parmi les irritants de la pulpe, nous en trouvons d'ordre:

- mécanique:—le fraisage
- thermique:—la chaleur durant le fraisage
- le liquide d'irrigation
- chimique:—les médicaments
- la salive
- bactérien:—les bactéries qui peuvent envahir les tubuli dentinaires

Mode d'action de la carie sur la dent.

La première résistance à la carie est la membrane de Nasmyth — cuticule de l'émail. Celui-ci contient beaucoup de Kératine, très résistante aux acides; avec l'usure, le cuticule disparaît, de sorte que l'émail est à découvert et libre pour la carie.

Les caries de l'émail sont dues à des déficiences dans la formation de l'émail: telles que points et fissures, et aussi aux surfaces molles entre les dents, "papilles", et près de la gencive, "les crevasse." Puis il y a les lamelles, les stries de Retzius, les fuseaux et les fissures. La carie suit les bâtonnets d'émail et la substance qui cédera la première est la substance interprismatique. De sorte qu'à un moment donné, les bâtonnets ne sont plus soutenus et, étant attaqués à leur tour, ils céderont eux-mêmes.

Une fois l'émail traversé, la carie attaque le joint énamo-dentinaire, la carie s'y étend, avant d'envahir les canalicules dentinaires. Mais l'état pathologique créé est différent de celui de l'émail, à cause de la structure plus organique de la dentine et des cellules odontoblastes. Ces dernières ont des réactions cellulaires vivantes à cause de la circulation lymphatique qui passe dans les canalicules dentinaires. La carie progressera donc plus vite dans ces tissus. Par contre, les cellules odontoblastes opposent une réaction de défense en calcifiant les canalicules dentinaires (zone sclérosée). Les canalicules étant envahis, les cellules

odontoblastes de la pulpe réagissent en produisant des dépôts graisseux dans les canalicules; là où la carie s'étend, les dépôts augmentent et viennent à former une dégénérescence graisseuse à cet endroit: c'est le stage d'inflammation des canalicules. Après ce stage, il se produit des dépôts de sels de calcium sous la partie cariée. Nous verrons plus loin que plusieurs théories expliquent ce phénomène.

Ces dépôts de calcium viennent à remplir les canalicules dentinaires sous la carie et les obturent complètement en formant une zone sclérosée qui prouve la résistance à la carie.

En même temps, les cellules odontoblastes en contact avec la pulpe protègent cette dernière en formant de la dentine secondaire.

La carie continue à détruire les canalicules en attaquant leurs parois. La matrice dentinaire étant attaquée entre les canalicules, les caries de chaque canalicule finissent par se joindre. Si le travail continue, la matrice dentinaire est finalement prise jusqu'à la pulpe et celle-ci devient exposée.⁽⁷⁾

Nature des micro-organismes.⁽⁸⁾

C'est le gros problème des bactériologistes de trouver l'agent spécifique de la carie. "The Research Commission of the American Dental Association" a fait beaucoup dans ses deux éditions sur "la carie dentaire". Dans sa dernière édition, 195 chercheurs de toutes les parties du monde en arrivent à ces conclusions: que la carie dentaire est d'origine bactérienne, mais que l'incidence de la carie dépend de la combinaison de plusieurs forces et qu'un seul facteur ne saurait être la cause première.

Tant que nous ne saurons pas comprendre parfaitement, ni agencer les relations qui existent entre la biochimie des liquides buccaux de la flore buccale, nous pouvons seulement risquer de dire que les facteurs: diète, hormones, vitamines, hérédité, influencent l'activité bactérienne et le développement de la carie.

La carie doit être en premier lieu

regardée comme une lésion localisée d'origine bactérienne, dont le *Lactobacillus-acidophilus*, qu'on ne peut considérer comme l'agent spécifique, car on trouve aussi le *Streptococcus mutans* et le *Streptococcus lactis et mitior*. Rosebury déclare: "Thus for we have not been able to satisfy ourselves that *Lactobacilli* alone among bacteria are capable of decalcifying enamel in vivo or that any critical "Ph" level of enamel solubility exists".

C'est alors que des recherches sur les possibilités de la salive de contenir un inhibiteur chimique ou bactérien qui contrôle l'incidence de la carie dentaire ont été faites. Comme nous le verrons plus loin, on constata au contraire que la salive favorise la carie. Tout de même, Grove fit des recherches avec de l'ammoniaque et il constata qu'une solution à .006% d'ammoniaque était .98% efficace comme solvant de la mucine salivaire. Ceci nous donne l'hypothèse de tenter d'inhiber l'action des bactéries.

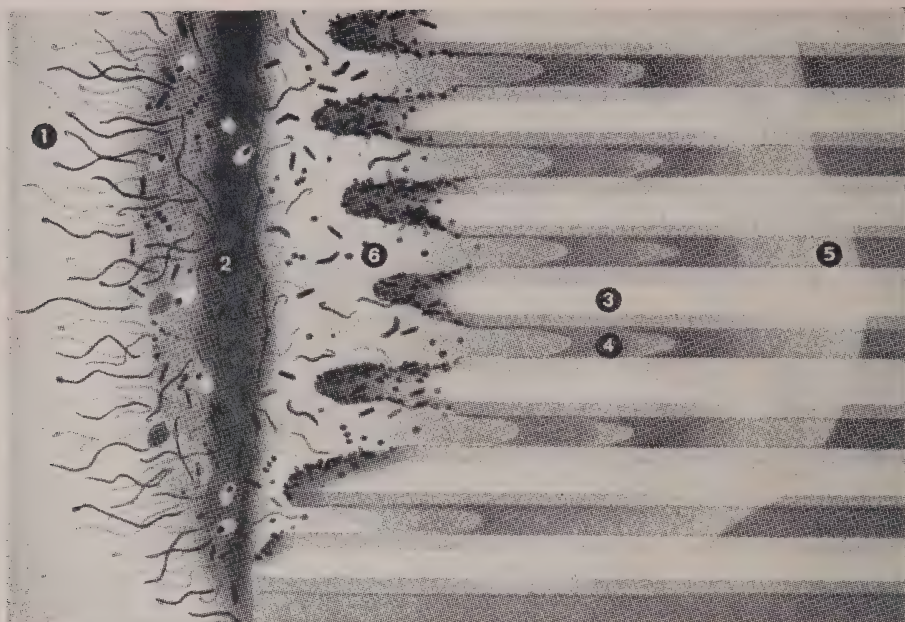
Ces micro-organismes, que nous avons rapidement énumérés, pénètrent-ils au delà de la zone de décalcification qui précède la lésion cariée? Ici nous sommes en face d'une controverse: devant des opinions contraires, rappelons-nous "qu'une chose est ou n'est pas". Mais puisqu'il y a controverse, c'est qu'on peut avoir une part de vérité commune.

Miller dit que les bactéries pénètrent dans la dentine normale sans provoquer de lésions visibles. Appleton prétend, lui, que si la carie atteint la dentine, on peut dire que la pulpe est potentiellement infectée; théoriquement, ceci semble vraisemblable, mais il néglige, il nous semble, le rôle de la défense naturelle de la dent. Lander trouve des bactéries dans les tubuli au delà de la zone de décalcification. Selon Black, les bactéries ne commencent à pousser dans les tubuli que lorsque les sels de Calcium de la dent ont été dissouts à une petite distance en avant de la région qu'elles ont atteinte.

Tous admettent donc la décalcification et la pénétration des bactéries. L'important est de savoir comment la décalcification peut se produire.

Trois théories sont possibles:

1—Une première affirme que les dépôts



1—Bactéries superficielles. 2—Bactéries attaquent l'émail. 3—Bâtonnets d'émail. 4—Substance inter-prismatique. 5—Décalcification. 6—Attaque des bactéries sur l'émail.

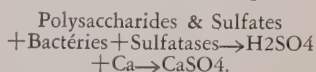
viendraient de la lymphe dentaire tapissant les parois des canalicules.

- 2—Une deuxième dit qu'il existe une réaction chimique entre les bactéries envahissantes et cette même lymphe.
- 3—Et une troisième prétend que la calcification se produit par les cellules odontoblastes elle-mêmes.

Ces théories sont difficiles à confirmer en raison du traitement que doivent subir les tissus calcifiés avant de subir les coupes histologiques.

Il semble admis qu'une infiltration de salive transportant des hydrates de carbone et des micro-organismes dans une cavité y provoquent des fermentations. L'acide ainsi formé se diffuse et sa pénétration est limitée par neutralisation à mesure qu'il se combine avec la matière inorganique de la dentine—ceci se fait en avance des micro-organismes.

Une autre théorie de la carie admet l'effet des enzymes bactériennes sur les constituants protéiques de la dentine avec des acides comme sous-produits.

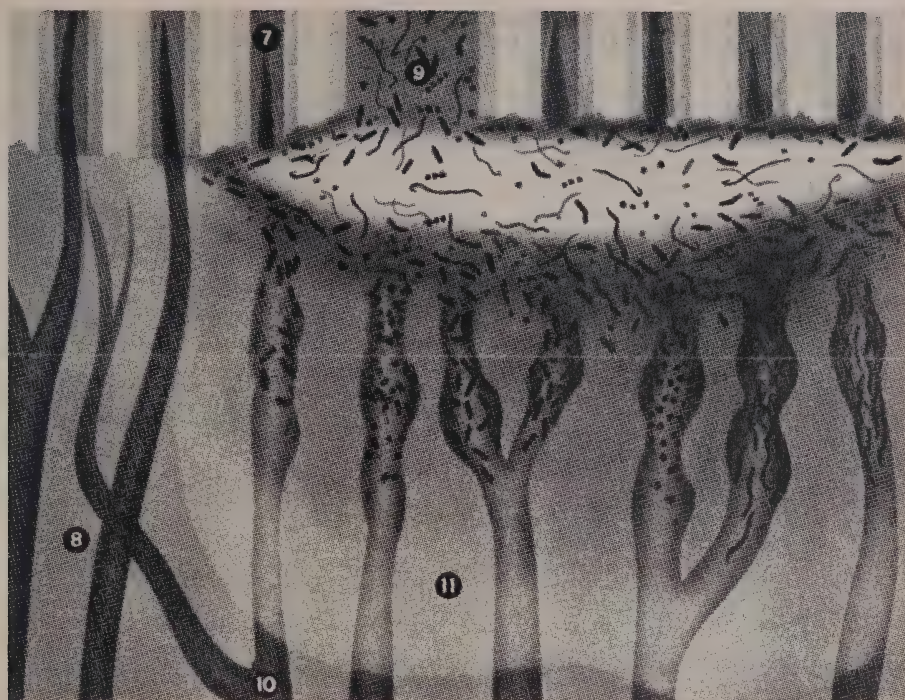


Une chose que nous pouvons admettre est que le micro-organisme, dans le voisinage d'une cavité, peut produire une quantité d'acide suffisant pour diffuser dans la dentine. Si nous tenons compte des calculs de Bevelander qui donnent 30,000 à 75,000 tubuli par mm. c. et de 3 à 4 microns de diamètre près de la pulpe et de 1 micron à la jonction énamo-dentinaire, à moins d'être bloqués par la calcification ou par les protéines coagulées, ces tubuli sont suffisamment larges pour laisser passer les micro-organismes.

Un antiseptique peut-il détruire les micro-organismes?

Les micro-organismes pouvant pénétrer dans les tubuli, il nous reste à savoir si un antiseptique peut détruire ces micro-organismes.

En premier lieu, l'efficacité d'un germicide dépend de la nature de l'objet à stériliser. Ainsi, comme on le fait souvent pour la dent qui est substance organique, on emploie un antiseptique coagulant les matières organiques. Il se forme alors une barrière suffisante pour empêcher tout contact entre la dent et les



7—Joint énamo-dentinaire. 8—Couche de dentine. 9—Attaque des bactéries dans la dentine. 10—Tubule dentinaire. 11—Formation acide.

micro-organismes. Il peut se faire aussi que ce ne soit là qu'une réaction antiseptique de surface.

Outre son efficacité, l'activité d'un germicide dépend du degré d'humidité du milieu environnant. Karshan a prouvé que la dentine contenait 8% d'eau à l'état de combinaison et que l'eau n'est pas éliminée par un chauffage à 100%. D'où il suit que l'humidité de la dentine étant faible, il devient difficile aux ions de se transporter et au germicide de pénétrer. Kaye et Philipps prétendent que la matière protéinique, à l'état sec, peut former une croûte impénétrable. C'est dire que la pénétration du germicide est très difficile et on peut conclure que la pratique habituelle de badigeonner des parois des cavités avec du Phénol, suivie ou non d'alcool, et d'insufflation d'air pour assurer l'assèchement peut seulement donner une stérilisation de surface.⁽⁹⁾

Parmi les antiseptiques les plus recom-

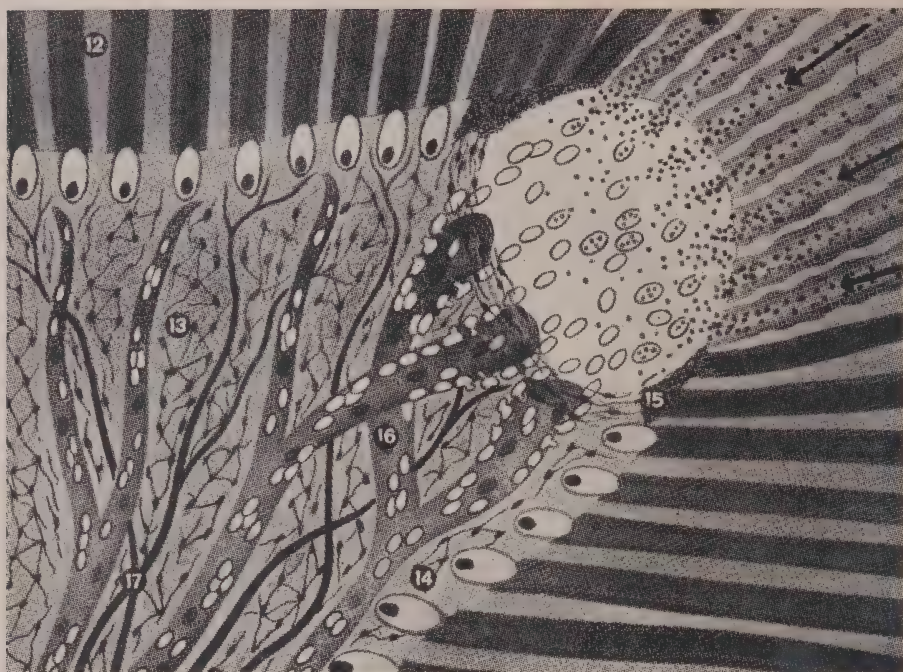
mandés, nous trouvons le nitrate d'argent, l'alcool, le phénol, le chlore et l'iode.

L'alcool à cause de son évaporation rapide, amène un changement de température qui affecte la pulpe. On peut remédier à cet inconvénient en chauffant une boulette de coton trempée dans l'alcool. Mais il reste un fait que l'alcool n'a pas un grand pouvoir pénétrant.

Le chlore et l'iode et leurs composés métalliques avec le cuivre et le zinc sont reconnus comme de bons antiseptiques: mais ils ont l'inconvénient d'être instables.

Mais ici, je fais remarquer que je serais curieux de suivre l'action de Paramonochlorophénol camphré dans la stérilisation des cavités: le manque de temps présent m'en empêche: c'est une étude que je tenterai postérieurement.

Le nitrate d'argent est sans contredit le médicament des gens d'expérience. On l'emploie sous forme de solution aqueuse



12—Dentine. 13—Pulpe. 14—Odontoblastes. 15—Dentine secondaire. 16—Vaisseaux congestionnés. 17—Nerf.

concentré de AgNO_3 , ou AgNO_3 en solution ammoniacale.

Dorfman, Stephan et Muntz démontrent d'une façon expérimentale, qu'une solution aqueuse de AgNO_3 stérilise 3mm. de profondeur de dentine en une minute, 7mm. de profondeur en deux minutes et 1.3mm. en dix minutes. A noter qu'il semble y avoir un rapport entre la pénétration et le diamètre des tubules.

Tenant compte de l'éloignement de la pulpe et de l'existence ou non de dentine secondaire, les ions Ag et NO_3 se diffusent vers la pulpe provoquant une lente dénaturation des fibres dentinaires, et les ions "Ag" sont précipités par les chlorures et les sulfates pour donner AgCl et Ag_3PO_4 qui ont une faible réaction antiseptique.⁽¹⁰⁾ Le AgNO_3 a toujours été employé avec l'idée qu'on devait stériliser une couche de dentine cariée, alors son emploi s'explique, si on tient compte du facteur temps.

On n'est pas sans savoir qu'il constitue

un danger pour la pulpe, même si nous neutralisons avec l'eugenol. Ne sommes nous pas plutôt en face d'une neutralisation en surface; car nous ignorons le degré de pénétration de l'eugenol; est-il le même que le nitrate d'argent? Point n'est donc besoin ici de faire une neutralisation, car nous sommes devant une couche de dentine cariée.

Cette méthode est approuvée par ceux qui croient qu'il vaut mieux laisser une couche de dentine cariée plutôt que de risquer d'exposer une pulpe. Mais aujourd'hui, une technique de coiffage de pulpe a été mise à point ici même à l'Université de Montréal par le Dr J. A. Renaud. Nous savons qu'il vaut mieux exposer une pulpe que de laisser de la carie. Car si nous avons de la difficulté à stériliser une cavité; même après ablation complète de carie, à plus forte raison en aurons-nous, en laissant de la carie.

Et nous en sommes arrivés au phénol qui est le plus couramment employé et qui cependant est un bien faible agent

stérilisant de la dentine. Miller, il y a soixante ans, a démontré que pour stériliser un mm. de dentine, il faut laisser le phénol en place pendant quarante-cinq minutes⁽¹¹⁾; en ceci, il est secondé par Baker qui dit que la dentine nécessite une exposition de phénol de 30 à 60 minutes. C'est dire que la pratique habituelle du phénol + alcool est totalement inefficace pour la stérilisation de la dentine.

Ici, nous pouvons mentionner des expériences que nous avons faites. Après application de digue badigeonnée au Métaphen, nous avons préparé une cavité de classe 1 sur une première molaire inférieure. L'ablation de la carie étant faite avec des instruments stérilisés, nous avons fait une application de phénol, comme nous le faisons normalement à la clinique. Dans un cas nous n'avons pas neutralisé à l'alcool; dans un autre, nous avons neutralisé. Dans les deux cas, nous avons obturé avec de l'Oxyphosphate, puis une couche de Gutta-Percha pour protéger la cavité contre la salive. Après une semaine, nous avons remis la digue, Métaphen, fait l'ablation du temporaire avec des instruments stériles, et pris une culture, comme nous faisons en endodontie, excepté que nous ensemençons une boulette de coton. Ces deux cultures furent positives: nous n'avions même pas une stérilité de surface, avec ou sans neutralisation, à l'alcool.*

Avec les mêmes cavités, nous avons répété les expériences de Miller: application de la digue, Métaphen, etc. Cette fois, nous avons pris nos fraises et coton dans une boîte stérilisée, destinée à l'endodontie. Quand les obturations temporaires furent enlevées, nous avons enlevé une mince couche de dentine, puis nous avons placé dans la cavité une boulette de coton largement imprégnée de phénol. Puis nous avons laissé ainsi le phénol agir pour quinze minutes; ensuite, nous avons obturé de nouveau avec de l'Oxyphosphate et Gutta-Percha. Après une semaine, nous avons remis la digue, badigeonnée au Métaphen, puis avec fraises venant d'une boîte d'endodontie nous avons fait

l'ablation du pansement temporaire, puis nous avons entaillé légèrement dans la dentine. Nouvelle prise de culture. Dans les deux dents, les résultats furent négatifs.

Cela semble attribuable au fait que le phénol ne se diffuse pas dans la dentine; il réagit avec les matières organiques et forme un caillot qui s'oppose à toute diffusion; la faible humidité de la dentine constitue une autre barrière à la dispersion. Dans l'eau, une solution de phénol de 1 à 5% de concentration peut se disperser et est un germicide efficace pour 30 à 60 minutes. Mais concentré et sur une dent sèche son efficacité est de beaucoup diminuée.

Pour ce qui est de l'application de l'alcool pour neutraliser le phénol, point ne semble besoin maintenant d'en parler, vu la faible diffusion de phénol et l'abaissement de température provenant de l'alcool.

C'est en 1897, que King et Pau établirent cet usage de neutraliser à l'alcool. Et depuis, McCulloch démontre que l'alcool éthylique augmente l'efficacité du phénol. Et, fait curieux, Appleton nous dit que toute addition d'alcool méthylique ou éthylique à une solution aqueuse de phénol ou d'aldéhyde formique diminue son action désinfectante. Deux opinions opposées devant un même procédé . . . il faudrait vérifier.⁽¹²⁾

Tout ceci nous amène à cette conclusion, qu'il est très difficile de stériliser une cavité après l'ablation de la carie. Car la carie est précédée par une décalcification; les micro-organismes pénètrent dans les tubuli; il devient alors presque impossible d'avoir une certitude absolue de stérilité. Nous avons en premier lieu, une stérilisation de surface par un précipité albumineux qui enferme hermétiquement les bactéries entre lui et la chambre pulpaire. En second lieu, si le bactéricide pénètre, nous ne pouvons en contrôler son action: se rend-il assez loin? Si oui, il devient dangereux pour la pulpe.

*Université de Montréal, Département de Bactériologie. Résultat de l'analyse demandée par P. E. Bélisle, le 15 octobre 1951.—Ouate à l'intérieur d'une cavité.—Réponse: Présence de deux germes: un microcoque saprophyte, non pyogène et streptocoque viridans (variante thermoxigène).

Si non: comment?

Devant un tel problème, nous devons faire l'ablation de la carie d'une façon absolue, nous rappelant qu'il vaut mieux exposer une pulpe et la panser que de laisser la carie agir sournoisement et perdre la dent.

L'ablation de la carie étant faite, employer un antiseptique que nos convictions et notre expérience nous indiquent. Il ne nous reste qu'à fermer hermétiquement la cavité et nous nous expliquons.

Le protoplasme bactérien est obtenu par l'action d'enzymes bactériennes sur le milieu environnant. Mais pour le fonctionnement des enzymes, une certaine humidité est nécessaire: Exemple, les fruits secs (raisins) contiennent des bactéries, mais l'humidité étant très faible, l'activité des enzymes microbiennes est tenue en échec. Ainsi, les micro-organismes, restant dans la dentine sous un scellement obturateur hermétique, sont dans une condition similaire; donc incapables d'activer leurs enzymes en raison de l'absence d'humidité. Mais au contraire, ils pourront proliférer, s'il se produit une infiltration de salive le long des bords de l'obturation. Cette infiltration atteint les micro-organismes; on a récidive, parce qu'il y a humidité nécessaire aux enzymes et que la salive elle-même apporte d'autre éléments.

Pour combattre les bactéries résistantes aux antiseptiques, il nous reste deux moyens: la substance obturatrice et l'emploi de la digue.

La substance obturatrice joue un rôle, en fermant la cavité d'une façon hermétique et en redonnant à la dent son anatomie. Elle constitue une barrière entre la salive, d'une part, et les bactéries, de l'autre.

Parmi les substances obturatrices, le silicate est le dernier tant qu'à son efficacité. Son échec s'explique, en premier lieu, par l'action pénétrante du liquide qui entre dans sa composition; et ensuite, du fait qu'il s'use par le brossage. Et l'attrition favorise ainsi l'infiltration de la salive.

L'amalgame bien malaxé dans une cavité bien préparée est une substance ef-

ficace, car elle est un bactériostatique. Mais le moindre défaut dans la préparation de la cavité et un mauvais malaxage peut amener une fissure de l'amalgame ou une brisure de l'émail.

Viennent en premier lieu l'aurification et l'incrustation. En raison de l'homogénéité de leur masse, ils constituent une barrière efficace opposée à la salive et une excellente résistance aux pressions de la mastication. Surtout l'aurification, qui entre en contact très intense avec la surface de la dent. L'incrustation, pour sa part, vaut en autant qu'elle est bien scellée et adaptée à sa périphérie: car il y a le ciment qui joue un rôle d'intermédiaire entre la dent et l'obturateur.

La digue vient donc à notre secours pour combler les déficiences de notre pharmacologie. L'expérience clinique montre que l'ablation mécanique de la dentine cariée et d'une faible couche dure au delà de la cavité, suivie d'une restauration hermétique, assure à la dent une longue vie.⁽¹⁴⁾ Black nous enseigne que s'il n'y a eu aucune fuite autour de la digue et aucune apparence d'humidité nulle part, on doit faire l'obturation aussitôt. La pratique de badigeonnage de la cavité ainsi préparée avec de l'alcool ou autre substance pour un meilleur nettoyage est inutile et peut être dangereuse en introduisant quelque chose qui pourra ne pas se laisser enlever facilement.

En théorie, les doigts, la seringue à air peuvent introduire des bactéries dans la cavité, mais si la cavité est sèche, celles-ci ne pourront proliférer, si l'obturation est hermétique.

Après avoir étudié la structure de la dent et le mode d'action de la carie, nous avons tenté de combattre l'action destructive des bactéries, pour constater alors que la stérilisation des cavités est un problème complexe.

Ce problème n'est pas encore résolu. Aujourd'hui, la dentisterie opératoire demeure la meilleure arme d'attaque contre le problème de la carie. L'application logique de l'extension pour la prévention dans la préparation des cavités, une restauration au contour bien défini avec bons points de contact facilite le nettoyage

et constitue notre meilleur arme contre la carie.

Après les succès obtenus avec les coiffages de pulpe, nous avons lieu d'espérer, car qui peut le plus, peut le moins difficile.

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327 de l'Eglise

Considérations générales sur les incrustations en or

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Communication présentée au cours d'un séminaire sur l'incrustation en or, tenu au Congrès de la Société Dentaire de Montréal, en mai 1952.

Nous sommes donc appelés aujourd'hui à vous présenter ce Séminaire sur l'Incrustation en Or.

Nous le faisons sans avoir la prétention d'être plus versés que vous dans la confection d'incrustations; nous voulons, avec toute simplicité, vous exposer des notions acquises par la pratique, jointe à l'observation.

Nous espérons que vous aussi, à votre tour, vous nous communiquerez vos idées sur l'incrustation au cours de la discussion qui va suivre.

Quant à moi, présentement, j'ai à vous faire part des considérations générales de l'incrustation métallique.

En commençant, je dirai que ce genre d'obturation, qui joue un rôle si important dans notre dentisterie opératoire et dans la fabrication des ponts, constitue une des méthodes les plus satisfaisantes au point de vue de la restauration et de la conservation des dents.

En effet, l'incrustation rétablit les contours anatomiques des surfaces défectueuses ou cariées d'une dent, reconstitue l'organe à sa fonction normale et protège

les parties fragiles de la dent contre les forces de la mastication.

Au dire de certains auteurs, l'incrustation métallique est une méthode d'obturation qui consiste, grâce à une empreinte exacte de la cavité, à préparer un bloc d'or qui reproduira fidèlement la forme intérieure de la cavité et reconstituera les formes anatomiques de la dent.

D'autres définiront l'incrustation comme étant une substance, habituellement en or, confectionnée en forme de bloc en dehors de la bouche, et ensuite, scellée d'une seule pièce dans la cavité complétée d'une dent; ce bloc d'or devant remplir les fonctions requises d'une obturation.

Voilà, à mon sens, des explications bien décrites du mode d'obturation que nous sommes en train de considérer.

La question qui se pose maintenant est la suivante: Quelles sont les indications et les contre-indications pour l'emploi de l'incrustation en or?

Pour rafraîchir notre mémoire, voyons quelques-unes des indications:

L'emploi de l'incrustation est indiqué

pour la reconstitution des surfaces usées par l'abrasion quand l'emploi des autres substances obturatrices serait contre-indiqué;

pour remplacer la couronne en or dans le cas des dents postérieures considérablement endommagées;

pour les cavités qui s'étendent sous le rebord gingival et quand l'exclusion de l'humidité est difficile à contrôler.

L'incrustation convient aux cavités difficiles d'accès comme les grandes cavités proximo-occlusales ou les M.O.D. des dents postérieures.

On aura recours à l'incrustation pour les invalides, les patients jeunes ou âgés, tous ceux qui sont incapables de subir des opérations prolongées.

On sait que l'emploi de l'incrustation abrège le temps des interventions en bouche, autant pour le patient que pour l'opérateur.

L'emploi de ce genre d'obturation est encore indiqué dans le cas des dents dont les membranes périodentaires sont affaiblies.

Pour les grandes cavités des molaires temporaires.

Et comme on le verra plus tard, l'incrustation en or est indiqué comme pièce de support dans le cas des dents qui doivent servir de piles pour les ponts et pour les dents qui serviront d'attaches ou d'appuis aux pièces de prothèse.

Un mot des principales contre-indications: l'emploi de l'incrustation est contre-indiqué pour les petites cavités, par exemple, les cavités de points.

Au point de vue esthétique, l'emploi de l'incrustation en or est souvent contre-indiqué pour les cavités proximales simples ou comprenant l'angle incisif des dents antérieures. Toutefois, on pourra obvier à cet inconvénient en employant des substances plastiques en combinaison avec l'or.

Et voilà pour les indications et les contre-indications.

Nos considérations seraient incomplètes si nous négligeons de reconnaître les avantages de l'incrustation.

Quels sont les principaux avantages?

En premier lieu, l'incrustation s'adapte

à toutes les classes des cavités, avantage qui mérite considération;

de plus, l'or employé résiste aux efforts masticatoires, à l'action des fluides buccaux: l'or est facile à polir et subit aucune modification de formes, une fois l'incrustation scellée dans la cavité.

Il est à remarquer que la dent obturée à l'aide d'une incrustation n'est pas affectée par les sensations thermiques.

Enfin, on doit trouver bon un genre d'obturation qui reconstitue les points de contact, les tubercules et les plans inclinés de la dent.

Malgré ces avantages, il faut citer un inconvénient qui peut survenir en pratiquant l'incrustation. Vous le connaissez comme moi: c'est le manque d'adaptation aux bords de l'incrustation, laissant le ciment, qui a servi au scellement, exposé à la salive.

Est-ce dû au manque de biseautage à l'angle cavo-périphérique de la cavité, à un défaut de la cire qui a servi à la prise d'empreinte, au revêtement, à une imperfection dans la coulée de l'or, ou encore au manque de brunissage de l'or dans le fini de l'incrustation?

Quoi qu'il en soit, l'incrustation possède les qualités d'une substance obturatrice, qui mérite toute notre considération.

Pour continuer notre exposé, il faut étudier certains aspects de la technique de l'incrustation.

En général, cette technique opératoire est quelque peu exacte sans être compliquée. Elle exige, tout de même, une attention particulière et une application soignée.

Il est inutile de rappeler ici l'importance des différentes phases de la technique, mais, permettez-moi d'insister sur le fait que la réussite de nos incrustations dépend très fréquemment de la préparation des cavités.

Comme preuve, voyons ce qui peut être dit en résumé de la préparation de ces cavités.

On sait que les principes fondamentaux de la préparation des cavités sont applicables pour toutes les substances obturatrices et qu'il sera seulement nécessaire de modifier la préparation selon les propriétés des différentes substances.

Or, dans le cas des cavités pour incrustation, on doit procéder de la façon suivante:

1. Le contour pour les cavités de fissures sera déterminé non seulement par l'étendue de la carie mais devra s'étendre jusqu'aux limites des sillons.

Dans le cas d'abrasion ou quand l'ouverture de la chambre pulpaire a affaibli les tubercules, le contour comprendra une partie ou toute la surface triturante des prémolaires ou des molaires.

Pour le contour des cavités de surfaces lisses, on devra pratiquer l'extension préventive.

2. Pour obtenir la résistance, la cavité, de toute nécessité, doit être de dépouille; les parois, étant aussi parallèles que possible, formeront avec le fond des angles droits. Ainsi, par sa forme rectangulaire et ses angles, la cavité pourra retenir le bloc d'or sans déplacement.

Comme la préparation de la résistance est de première importance, il faut ajouter qu'il est essentiel d'employer du ciment dans les cavités profondes où les parois apparaissent irrégulières, surtout après l'ablation de la carie. A l'aide du ciment on pourra remplir les cavernes, les rainures et en même temps rendre les parois dentinaires unies et lisses, de manière à garantir la dépouille et la future adaptation de l'incrustation.

En pratiquant cette technique l'opérateur réussira, sans aucun doute, à sortir de la cavité la matrice de cire sans la déformer. Que d'échecs nous aurions pu éviter si nous avions compris l'importance de ces détails!

3. Considérons la retention:

La résistance, telle que décrite précédemment, contribuera à obtenir la retention et en plus ce stade sera complété par un ancrage ayant la forme d'une queue d'aronde, ou mortaise,

par des sillons sur les surfaces proximales, à l'aide de crampons ou pivots métalliques. Et enfin, par le ciment.

4. La séparation temporaire des dents est considérée comme stade de commodité, dans le cas des cavités d'incrustation.

En dernier lieu, la préparation de la cavité sera complétée par le biseautage de l'angle cavo-périphérique, stade qui est spécialement indiqué pour les cavités d'incrustation.

En définitive, si l'on veut obtenir les meilleurs résultats, il faut tenir compte des principes exposés, et, je répète, pratiquer avec beaucoup de soin la préparation des cavités destinées à recevoir une incrustation.

Une fois la cavité préparée, on doit procéder à la prise d'empreinte.

Doit-on choisir de préférence la méthode directe ou les méthodes indirecte ou indirecte-directe pour la prise d'empreinte?

Cette question est souvent discutée et les opinions sont partagés à savoir laquelle des méthodes est la plus pratique. J'estime que ces différentes méthodes peuvent être employées suivant le cas ou suivant les habitudes de chaque opérateur.

J'ajouterai, cependant, qu'il est recommandé de se servir de la méthode directe pour les cavités faciles d'accès, comme, par exemple, les cavités proximales des dents antérieures; et, dans le cas des cavités inaccessibles, on peut se fier à la méthode indirecte ou indirecte-directe.

J'ai dû abréger mes remarques, le temps étant limité, afin de permettre à mes collègues de parler à leur tour.

En terminant, il me semble opportun de dire que, comme praticiens, nous devons essayer de perfectionner des inlays qui feront honneur à notre réputation professionnelle et qui rendront le service dont s'attend le patient, puisqu'il s'agit de son bien-être et de sa santé.

Edifice Medical Arts



NOUVELLES DE L'ASSOCIATION

Congrès de Londres

Le Congrès de la Fédération Dentaire Internationale, tenu à Londres du 19 au 26 juillet, fut des plus réussis, après quatre ans de préparatifs de la part du comité anglais. Quatre mille trois cent cinquante-six dentistes de 76 pays différents s'inscrivirent à cette réunion. Les assises avaient lieu dans la salle Royal Festival, qui est une salle spécialement appropriée à ce genre de réunion. Cette raison seule a beaucoup contribué à la réussite de ce Congrès. Le comité d'organisation, sous la présidence du Dr E. W. Fish, C.B.E., et ayant comme secrétaire M. G. H. Leatherman et comme trésorier M. Alan McLeod, a reçu un témoignage de félicitations, qu'il a certainement mérité.

Du commencement à la fin, le Congrès se déroula dans un esprit international; la rencontre de confrères, intéressés aux mêmes problèmes, constituait une réelle expérience humaine. La difficulté des langues différentes était aplanie par les services de traducteurs experts, grâce auxquels les conférences données en anglais, en français, en espagnol, en italien ou en allemand étaient immédiatement transmises dans la langue de l'auditeur par des récepteurs installés à chaque fauteuil.

Les ambassadeurs des pays représentés au Congrès assistaient à la séance d'ouverture. Le président de la Fédération Dentaire Internationale, le Dr F. L. Nord, de Hollande, s'adressa à l'assemblée en faisait ressortir les buts de la F.D.I. en organisant une réunion, tous les cinq ans. Il présenta ensuite le Dr Fish comme président du congrès. Le Dr Fish se dit pleinement conscient de l'honneur d'avoir à présider le Congrès et présenta au Ministre de la Santé ses remerciements pour l'encouragement que son intérêt pour cette réunion avait suscité partout.

Le Très Honorable Iain MacLeod, M.D., Ministre de la Santé, qui avait accepté de prononcer le discours d'ouverture, appuya sur le désir de son gouvernement d'aider la cause de l'hygiène dentaire et exprima de désir de voir la Con-

grès contribuer à la diminution des maladies dentaires.

A la suite des discours, M. G. H. Leatherman fit l'appel des pays. Le spectacle était des plus impressionnants de voir les délégués se lever à l'appel du nom de leur nation et d'entendre les applaudissements qui éclataient à chaque mention d'un pays. On ne pouvait prévoir d'avance le nombre des nationalités qui seraient représentées.

A la session inaugurale, on décerna les prix de la F.D.I. Les prix Miller décernés aux dentistes qui rendent les plus grands services à la cause internationale dentaire, furent attribués au docteur B. Orban, de Colorado Springs, Etats-Unis, au docteur S. Palazzi, de Milan, Italie et au docteur A. E. Rowlett, de Leicester, Angleterre. Pour son travail remarquable dans le domaine de la prothèse, le prix Villain fut décerné au docteur A. Gysi, de Zurich, Suisse, qui ne put recevoir son prix lui-même, à cause de son âge avancé.

Le programme scientifique débuta par une communication de Sir Alexander Fleming, F.R.S. Dans ses remarques, le Dr Fleming déclara qu'on lui avait rapporté que les dentistes utilisent la Penicilline plus que toute autre spécialité de la médecine. Les conférences et les cliniques convraient toutes les phases de la dentisterie et étaient présentées par des dentistes venant de tous les coins du monde. Les dentistes canadiens avaient comme représentants aux séances scientifiques le Dr S. A. MacGregor, de Toronto, le Brigadier E. M. Wansbrough, D.G.D.S, d'Ottawa, le Dr J. H. Johnson, de Toronto, le Dr H. J. Merkeley, de Winnipeg et le Dr R. J. Godfrey, de Toronto.

Une nouveauté, qui a suscité beaucoup d'intérêt, fut le Telekinema qui, au moyen de la télévision, permettrait la projection à distance de tous les détails d'une opération sur un écran de 18' x 13 1/2'.

Plusieurs pays, dont le Canada, avaient des étalages d'hygiène dentaire dans une salle voisine, où le public était invité. Les fournisseurs dentaires avaient aussi

une exposition de leurs produits. La France, l'Allemagne, la Suède, la Hollande, la Grande-Bretagne et les Etats-Unis montraient aux congressistes les plus récentes créations dans le domaine de l'équipement et des matériaux dentaires sur deux étages du Royal Festival Hall.

Les délégués, en plus des conférences, des cliniques et des démonstrations de table, ont pu, à loisir, approfondir les systèmes d'enseignement dentaire et les hôpitaux d'Angleterre. Les institutions dentaires avaient organisé avec soin des étalages et des cliniques au bénéfice des visiteurs.

Le programme social fit l'admiration des congressistes. Tous les organismes, touchant de près ou de loin à la dentisterie, s'étaient donné la main pour intéresser les membres du congrès. L'Association Dentaire Anglaise reçut à un cocktail dans le restaurant supérieur du Royal Festival Hall. La Société Royale de Médecine accueillit les délégués à son édifice de la rue Wimpole et durant la soirée décerna des diplômes honoraires de la section d'Odontologie au Dr. R. G. Ellis (Canada); Adolf Ross (Suisse); au professeur P.O. Pederson (Danemark). Le Gouvernement de Sa Majesté avait organisé une réception pour les délégués à la Galerie Tate; un grand nombre de personnes se rendit à cette invitation. Le clou du programme social fut le bal du Congrès, qui eut lieu au Albert Hall, qui, dans le passé, fut le théâtre d'événements sociaux mémorables; plus de 3,000 personnes assistaient à cette danse, organisée dans un décor des plus appropriés. Le London County Council avait invité les congressistes au County Hall, Westminster; le Sénat de l'Université de Londres offrit aussi une réception aux délégués. Le banquet du Congrès eut lieu au Grosvenor House, sous la présidence du Dr E. W. Fish, C.B.E. Mlle Florence Horsbrough, Ministre de l'Education, répondit au toast porté à Sa Majesté. L'orchestre symphonique de Londres présenta un concert au Royal Festival Hall. En plus de ce programme social des plus chargés, des autocars transportaient, tous

les matins, du Festival Hall, les visiteurs dans la campagne anglaise et aux endroits célèbres par leur histoire.

A la fin du congrès, le Dr Nord, en sa qualité de président de la Fédération Dentaire Internationale et le Dr Fish comme président du Congrès tentèrent de remercier tous ceux qui s'étaient dévoués au succès du Congrès. Tous deux admirent leur impuissance à trouver les mots appropriés pour louer les organisateurs de cette réunion, qui fut la plus réussie de toute l'histoire de la F.D.I. Les résolutions suivantes furent acceptées à l'unanimité:

- 1) De la Section des forces armées:
Que la Section des forces armées du onzième congrès de la Fédération Dentaire Internationale trouve indispensable pour tous les pays qui ont des armées, l'organisation d'un service dentaire chargé de la santé dentaire des membres des armées.
- 2) De la Section des matériaux dentaires:
Que la Section des matériaux dentaires du onzième congrès de la Fédération Dentaire Internationale, à cause de la nécessité qui existe d'intensifier les recherches de base dans la science des matériaux dentaires et de standardiser ces matériaux, favorise un échange plus considérable et une collaboration plus étendue, dans ce domaine entre les nations du monde; de plus, elle demande qu'on étudie la possibilité de fonder un organisme international, qui s'occupe de cette question.
- 3) De la Section d'enseignement dentaire.
Que la Fédération Dentaire Internationale étudie la possibilité d'établir une réciprocité dans les facultés dentaires du monde pour l'admission à des qualifications plus poussées et d'encourager l'échange de professeurs sur une base internationale.

On a décidé de tenir le prochain congrès à Rome, en 1957.

Durant la dernière soirée, le banquet de la F.D.I. eût lieu à l'Hotel Savoy, où le Dr Oren Oliver, de Nashville, Etats-Unis, fut intronisé comme président de la Fédération Dentaire Internationale pour les prochaines cinq années.

Nouvelles Des Sociétés

Société Dentaire de Montréal

La Société Dentaire de Montréal a rendu publique la liste de ses conférences et des ses cliniques pour l'année académique 1952-1953.

Voici le programme scientifique de l'année:

- septembre: Dr Raginski, M.D., de Montréal: "L'hypnotisme et le point de vue dentaire".
octobre: Dr E. Zegarelli, de New York: "Moyens de procéder à un bon diagnostic".
novembre: Dr McCutcheon, de Montréal: "Prothèse complète".
décembre: M. Jean P. Charbonneau, C.R., de Montréal: "La profession dentaire devant la loi".
janvier: Séance d'étude à l'Hôpital du Sacré-Coeur.
février: Dr P. Dionne, Joliette: "Comment réussir nos inlays".
mars: Forum nouveau genre.

avril: Visite de l'aqueduc de Montréal, sous la direction du Dr Groulx.

mai: Congrès.

Les dirigeants de la Société Dentaire de Montréal se sont constitués en différents comités pour diviser le travail qu'exige l'élaboration de ses diverses activités. Voici ces comités:

Bulletin mensuel et publicité: Dr C. A. Durand, Dr Gilles Baril, Dr Vincent Tremblay, Dr Roland Gendron.

Cliniques et conférences: Dr Jacques Demers, Dr Hervé Deschênes, Dr Guy Le François, Dr R. E. Lussier.

Golf: Dr Pierre Chalifoux, Dr Jacques Demers, Dr Antoine Raymond, Dr Guy Langelier, Dr Roland Gendron.

Partie d'huîtres: Dr Gaston Lajoie, Dr Léon Carpentier, Dr C. A. Durand, Dr Antoine Raymond, Dr Fernand Lalonde.

Trésorerie: Dr Victorien Dubé, Dr Pierre Chalifoux, Dr Gilles Baril.

Congrès: Directeur: Dr Louis Lépine.

Annonces: Dr Fernand Lalonde.

La Société de Stomatologie de Québec

La Société de Stomatologie de Québec a tenu une saison scientifique des plus remplies durant l'année académique 1951-1952.

Des conférenciers et des cliniciens locaux et de l'extérieur ont tout à tour mis les membres au courant des plus récentes techniques et des théories les plus nouvelles touchant la chirurgie dentaire.

Cette année, sous l'impulsion d'un Exécutif entreprenant, ce groupement de dentistes de la ville de Québec et des environs se propose d'intensifier ses activités au plus grand bénéfice de ses membres. Comptant parmi ceux-ci le Président de l'Association Dentaire Canadienne, la Société de Stomatologie désire se mettre en vedette au sein des Associations dentaires analogues du pays; dans ce but, elle invite cordialement les dentistes de la région à se joindre à la Société pour profiter des avantages qu'elle offre à ses membres.

Voici le sommaire des travaux, qui ont été présentés aux réunions de la Société

de Stomatologie de Québec, durant l'année dernière:

Septembre: "Sterilisation immédiate"

Dr Vincent Tremblay, Montréal

Octobre: Visite du Président et du Secrétaire de l'A.D.C., les Drs H. M. Cline et D. W. Gullett.

Dr Jean Nadeau, Montréal

Dr Jacques Demers, Montréal

Dr Guy Lefrançois, Montréal

Coquetel au Cercle.

Novembre: "Amalgame"

Dr Hervé Déchênes, Montréal

Décembre: "Aspects légaux de la profession dentaire"

Dr Charles Laflamme, Lévis

1952—

Janvier: "Chirurgie à la portée de tous"

Dr Viger Plamondon, Québec

Février: "Dentisterie chez l'enfant"

Dr Otto Bengle, Montréal

Mars: "Physiognomonie et phrénologie"

Dr Paul Dionne, Joliette

Avril: Deux films du docteur Nevin, sur l'anesthésie.



Photo from Canadian Government Travel Bureau

A Lone Rider on the Trail to Bertha Lake in Waterton Lakes National Park, Alberta, Canada.

TEN POINTS

They cost so little They are worth so much!

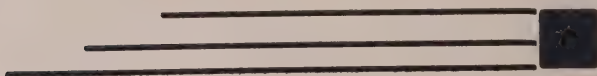
1. You cannot bring about prosperity by discouraging thrift.
2. You cannot strengthen the weak by weakening the strong.
3. You cannot help small men by tearing down big men.
4. You cannot help the poor by destroying the rich.
5. You cannot lift the wage-earner by pulling down the wage-payer.
6. You cannot keep out of trouble by spending more than your income.
7. You cannot further the brotherhood of man by inciting class hatred.
8. You cannot establish sound security on borrowed money.
9. You cannot build character and courage by taking away a man's initiative and independence.
10. You cannot help men permanently by doing for them what they could and should do for themselves.

—*Land O'Lakes News*



J. GORDON CHALMERS, D.D.S.
Toronto, Ontario

President Academy of Dentistry.
Graduate of University of Toronto, 1929.
Past President West Toronto Dental Association.
Former Treasurer of University of Toronto Dental
Alumni Association.



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, NOVEMBER, 1952

No. 11

A Review and Appraisal of Restorative Dentistry†

by GERALD D. STIBBS, B.S., D.M.D., F.A.C.D.,* Seattle, Washington

THE occasion provides an opportunity for retrospection as well as prophesy. Here we deliberate the current thought in dentistry, in the fiftieth year of organized dentistry in Canada, and as we begin the second fifty years of the twentieth century.

As one considers the program presented at this fine meeting, it is reassuring to note the importance placed upon actually practising dentistry and serving the public with the wealth of knowledge and technical skill available. There is nothing nebulous in this program. The officers and committees are to be complimented for their forthright approach to the problem of providing more and better dentistry.

Instead of discussing any specific technique or procedure on a program which is adequately covered from that standpoint, let us observe the overall picture, and consider restorative dentistry during the past fifty years. Let us see what was inherited at the turn of the century, what has been contributed during the interval, what the position of restorative dentistry is today, and what its future appears to be. Perhaps by so doing, we can gain a new perspective and can sense a renewed glow and incentive. You are familiar with the expression "being unable to see the forest for the trees". It is stimulating occasionally to back

away from the trees until our gaze can scan the broad beauty of the forest.

When we speak of Restorative Dentistry, of what do we think?

a) The technique work which the undergraduate student is taught to do?

b) The clinical work he does before he graduates?

c) The type of service we see all too frequently?

d) Or that which is done by those of you who are devoting yourselves to fine dentistry?

Likely we should keep all types in mind. Since we must include operative dentistry, crown and bridge, partial and complete denture prosthesis, it will be necessary to resist any temptation to wander too far afield.

How to go about such a review? Since very few here today were actively engaged in dentistry at the turn of the century, the only reliable means is to call upon past writers for guidance. Incidentally, it is profitable to utilize a portion of one's spare time or study time in browsing through old issues of the journals¹. It is most interesting to note comments of the editors and to read the papers which were presented at the meetings. Some years ago it was customary to publish the spontaneous discussions, as well as the papers, and that often gave more flavour to the message.

†Read before Golden Jubilee Meeting of the Canadian Dental Association, Vancouver, B.C., June 18, 1952.

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It has been noted that while dental journalism has kept pace with the progress of the publishing world as well as that of dentistry, there is apparent in some editorial quarters a tendency to give so much space to what are ponderously termed "scientific" papers that there is little or no room left for anything in the way of moralizations: I am pleased that such is not the case with the organ of your Association.

Often the papers which have the most lasting and stimulating effect upon their readers are those which preach a little and scold a little and are not restricted entirely to graphs, statistics and photomicrographs.

During the preparation of this paper, some of what might be called the classics in our literature were rediscovered. Two of them I would recommend for your enjoyment and inspiration. One was written by J. Leon Williams in 1900, entitled "Conditions of Success"²; the other is one of J. Mark Prime's evangelistic essays, "Is Operative Dentistry Failing?"³. For that matter, all of Prime's papers provide food for thought.

While on the subject of dental journalism, I would like to compliment the editor and staff of the *Journal of the Canadian Dental Association* on the Jubilee issue of the *Journal*. It is the result of a great deal of effort on the part of many.

Enough for our source of information! How now shall we organize our consideration of Restorative Dentistry, past, present and future? For convenience, perhaps each era could be discussed briefly under the headings of: Materials and Procedures, Research and Education.

PRIOR TO 1902

Think first then of the status of Restorative Dentistry in the years immediately preceding the formation of the Canadian Dental Association in 1902. What materials and procedures were in use? Was there any research? What of dental education?

Procedures

Some thought was being given to the problem of the control of pain while providing health service. General anaesthesia had been discovered by two dentists, and in 1884 local anaesthesia through the use of cocaine was presented⁴. Neither general nor local anaesthesia were used to any degree in restorative procedures, however, for the element of danger was relatively great.

At this same time, too, the roentgen-ray was waiting for general use and acceptance, but again novelty and lack of thorough understanding of the dangers, as well as the advantages, kept the profession from using it as they should⁵. Strange, is it not, that today with the novelty dissipated and the dangers controlled, there are still many who stubbornly or ignorantly attempt to practise dentistry without the routine help of the x-ray!

What restorative materials and techniques were available before the turn of the century?

The use of cohesive gold foil had been developed and had many staunch advocates, even though the procedure was extremely long and tiring.

Gold fillings were being made "out of the mouth", though the casting process was still to come⁷. Even vulcanized rubber was being used for inlays⁸.

The memorable "Amalgam War" was waged, but as the new century dawned one editor was constrained to state that "amalgam has reached the point of respectability"⁹, and some were urging that its use be taught in the schools¹⁰. However, as late as 1910, a few voices were still raised against amalgam as being a passing fad¹¹, while the more farsighted were rather decrying its misuse¹².

Crown and bridgework had been crude and much abused, but apparently had found a legitimate place. The precursor of precision attachments had appeared in a paper by Lister of England¹³.

The rubber dam had been available for some time, but essayists were com-

plaining that students were being taught "archaic" methods of placing it¹⁴. Judging from reports from various sections of the country the complaint would still be in order!

G. V. Black, always highly regarded, had presented a plan to systematize instruction in operative procedures; he had begun to preach "extension for prevention"; and had presented an orderly sequence of steps to follow in cavity preparation¹⁵.

The value of saving teeth was being realized.

Occlusion was receiving attention, as was the interproximal space, and "Contour fillings" were replacing the previously accepted "Flat-face" fillings^{16, 17}.

Thought was being given to aesthetics, with resultant developments in ceramics and in orthodontics.

Research

Did research have a place at this time? Yes; although the restorative field dominated the literature, more and more papers were appearing dealing with bacteriology and dental caries. The statement was made that "the causes of decay have been almost definitely determined"¹⁸. Recurrent caries was being explained by some on the basis of the "electrical theory", but they were being refuted by the works of men like W. D. Miller¹⁹. The need was felt for more research as well as for new materials. In the latter connection though, some bitter battles were being waged in respect to patents and royalties.

Education

In dental education, the school system had been organized but then, even as now, the supply of teachers was inadequate¹⁴. For a concise summary of the history of dental education, read the article by Bagnall in the Jubilee issue of the *Canadian Journal*²⁰.

In the line of education, it is of interest to note, too, that in 1890 the phonograph was first used to bring the voices of absent lecturers to the audience at a dental meeting²⁰. (Perhaps

the innovation should have been continued!)

So dentistry entered the twentieth century confidently, and with just a little feeling that though there would be *some* further progress, anything beyond that would be a source of astonishment to say the least. One editor said he believed the "profession is written out!"²¹ Yet most of the leaders offered encouragement and best wishes and expressed the thought that it was just possible that something really big was in store²².

1902-1952

Through the ensuing fifty years many valuable and unexpected advancements were made. The pace quickened. Great forces were on the move.

The attainment of safety in local anaesthesia was perhaps one of the greatest forward steps in the entire history of the profession. Close akin to it was the steady improvement and more universal use of the x-ray in dentistry—due in no small measure to the efforts of men like Kells, Raper, Simpson, Canada's Weston A. Price and many others.

A very heady stimulant was supplied by the statement of Dr. Charles Mayo, which has been quoted ad infinitum, in respect to medicine expecting the next great advancement in prevention to come from dentistry²³.

The focal infection theory was propounded, and it launched the profession on a headlong orgy which only recently has been brought under discriminatory control^{24, 25}.

The expanding ramifications of the restorative field as it had existed became so complex that from it sprang offshoots which have since developed into fully grown, independent, though still allied specialties, such as Prosthodontics,—complete and partial, the latter being further divided into Removable Partial, Fixed Partial, and Fixed-Removable Partial Dentures. Other divisions are Periodontology, Pedodontia, Endodontia and Ceramics.

It should not be forgotten, however, that the parent, Operative Dentistry, still requires as much skill and incentive as do any of her children—some schools of thought notwithstanding!

Procedures

In the technical field, strong men appeared with worthwhile refinements—Wedelstaedt, Ferrier, Tinker, Chayes—to mention only a few examples. It must be said in passing that there have been some self-styled refinements which have not helped materially in the constant search for sound improvements in conservative procedure. Naturally all cannot be right, but it is unfortunate when the proponent of some new idea will not admit any defect when it is discovered, but continues to promote his brainchild to the limit. Yet we can take heart from the literature of past days. The ill-conceived has withered away in spite of repeated stimulants. Time is a great leveller.

One who deserves special mention for his invaluable contribution is W. H. Taggart, who introduced the casting process in 1907²⁸. What a boon that has been. Through the years the efforts of countless men have brought the process to its present degree of perfection. They cannot all be named individually; suffice it to mention only a few such as Van Horn, Weston Price, Scheu and Hollenback^{27, 28, 29, 30}.

In respect to fixed bridges, it must be recalled that they had their ups and downs through the years. In 1914 they were roundly condemned by some leaders, and unqualified predictions were made that within the next ten years fixed bridgework would no longer be used³¹. Since that time the refinements in casting procedures and additional studies in respect to proper pontic construction have saved the fixed bridge from ignominious extinction.

In this fifty-year period, two other new materials were adapted to operative dentistry. First came the silicate cements, or as some would have us

call them "porcelain fillings" (which they are not, by any stretch of the imagination). Secondly, the acrylic resins were first utilized as individual restorations about 1938. Each of the two materials has enjoyed a wide flurry of support and in spite of their definite shortcomings will likely continue to be used, for they lend themselves to casual technique, and offer a ready excuse for promotion on the basis of their initial aesthetic value. It is possible that the resins will be improved to the point where they will offer permanence as well as temporary aesthetic value to restorations. In the meantime, the pendulum of reaction is swinging back from the wide sweep of clamorous enthusiasm evidenced only two or three years ago. Soon a state of balance should be reached and the material, as presently available, can be used sanely in the few places where it is really indicated in restorative dentistry.

Reverting to basic considerations, by the beginning of the second quarter of the century Black's fundamental principle of "extension for prevention" was generally accepted, even though it was not, and still is not, practised as universally as it should be³². The literature showed an increase in stress on carving and proper proximal contours in restorations^{33, 34}.

Time limitation precludes mentioning all of the advancements in procedures. For those who are interested, the summary of them presented by Markley is recommended³⁵.

Research

Through the years of the Canadian Dental Association's existence, research in dentistry has received increasing support and has played an ever more important role. Research Commissions were formed^{36, 37}. At first their studies dealt chiefly with materials, and were led by men such as G. V. Black and Weston Price. As the years passed, more of the initiative has been taken by groups such as the National Bureau of Standards, and by

the Associate Committee on Dental Research of the National Research Council in Canada. Each of us in dentistry is profiting daily by the consistently high quality of research conducted at these levels.

Paralleling these studies in materials and procedures there have been great strides forward in the understanding of growth and development, function and occlusion. For such enlightenment, which is still only a beginning, we must acknowledge the contributions of workers such as Dewey, McCollum, Brody, Sicher, Schuyler and so many others.

The third avenue of research which has been showing great impetus has been that of prevention. Here again the advances have been prodigious, yet the possibilities have scarcely been touched. It cannot but be observed, however, that too many of the practising members of the profession tend to be overawed by these advancements. Because they may feel that they do not have a great knowledge of some of the basic sciences, they act as though their own field of activity is so simple that it hardly merits attention and that anyone can "fill a tooth". It would be well for practitioners to remember that they are just as important cogs in the wheel of dental service as are the research personnel, granted that most of us could not conduct pure research projects readily. Neither can the workers in pure research serve the public by dental practice, any more than can the laboratory technicians. Be proud of your own field. It is vitally essential, particularly if performed to the best of one's abilities.

Education

How has dental education fared in this half century? - You can review its activities by turning not only to the Jubilee issue of the Canadian Dental Association Journal, but also to the mid-century issue of the Journal of the American Dental Association. In summary, however, the dental curriculum has become pretty well standardized in

its goals and course content, and in dental education having become an integral part of general university training rather than on the previous, privately owned school level. Opinion still is not unanimous as to the best methods of instruction, nor as to the most advantageous means of coordinating didactic and clinical teaching. Interesting experiments are being conducted by different schools at the present time to determine whether the student is better indoctrinated by having clinical experience parallel his basic science studies in respect to time, or whether the more prevalent method of giving basic science subjects in the first years, followed by concentration on clinical activity is the more effective. Time and continued experimentation in teaching methods will likely provide the answer.

One prevalent situation in dental education should be mentioned. There is an ever greater demand by the profession for post-graduate courses in all phases of dental education, with the greatest stress being laid on advancements in the clinical fields. It is an encouraging sign. It might be mentioned too, that the universities are gradually making provision for graduate students to take advanced degrees as they prepare themselves for practising specialties. And while restorative dentistry, as such, is not generally considered to be a specialty, one is proud to be associated with one of the first, if not the first school of dentistry to offer a Master of Science degree in Restorative Dentistry.

THE PRESENT

Interesting as a review of past events is, we must see how it applies to the present and future, or we may have a repetition of an incident which occurred at a dental convention a number of years ago. It is told that J. P. Corley wished to address the meeting on his cherished, and at that time new, subject of Oral Hygiene. The chairman told him there would not be time, for they were scheduled

to hear a paper on Dental History. "My God," shouted Corley, "I want to make history, not listen to it."³⁸

While there is no thought of making history here, let us at least try to use this sketchy review of our development to make an evaluation of the relative importance of restorative work in the dental picture today. Is it indeed still a prime force in dental service? What is its stature as compared with preventive dentistry and with research in the basic sciences?

Strangely enough, there seems to be little change. If you will look at the program of a dental convention held twenty, forty or sixty years ago, you will be startled to see that in the main the stresses were in much the same proportion as they are today. Very often the titles of papers and clinics and research projects were word for word duplications of those which you find on the programs of meetings of the present day. Materials, procedures, pleas for conservatism, studies in prevention, all were considered then as now. Are we then in a fifty-year status? Not by any means! While the subjects are the same, the content and the level of achievement is on an immeasurably higher plane. We could not be where we are today, had it not been for the sacrifice and devotion to service of the countless ones who laboured for the love of dentistry and their fellow men. Yet these men would be speechless could they but know today the possibilities which are within the reach of every one of you. Think of the knowledge and techniques that are yours for the seeking and application.

In the field of prevention we are entering a vast new world of dental medicine. There are the miracles of the antibiotics, the caries reduction possibilities of fluoridated water supplies, the retarding of dental disease by proper nutrition and by many new procedures and preparations in oral hygiene.

In the basic sciences new vistas are opening in growth and development.

As a case in point think of the attention currently being given to the temporomandibular joint, and to occlusion and function of the natural dentition. Much knowledge has been accumulated in recent years. Yet this is the type of study which must be approached with some degree of caution. It will be unfortunate if we treat it as another one of our new toys or games, and play it with such reckless abandon that more harm than good is done.

Operative techniques and procedures are being refined constantly as a result of the burning desires to know more of aesthetics, conservatism, precision and function. Prostheses of all types are much finer, or can be if current knowledge is thoughtfully applied.

Materials are more closely supervised and we are better able to offer service of uniform quality. Think of the standardization of the filling materials; think of new materials and instruments available to us, such as the hydrocolloid impression materials, the diamond tools and the vastly improved design of hand-cutting instruments.

One thing we have not found is a restorative material that is as good as, let alone superior to, the one which was used one hundred years ago. The only change has been that refinements in cavity preparation and in instrumentation have now placed gold foil within the reach of any who will but devote a little time and effort to learning how to use it with confidence and facility.

Apparently, then, we have at our disposal the means of giving the people the ultimate in dental service. Certainly the public requires dental care to the extreme limit of our power to produce it. Yes, the demand is present and the wherewithal to deliver the type of service required is available.

But is the demand being met? What answer does each man hear as he asks himself these basic questions:

1. Does each mouth we see receive an adequate examination—visual, instrumental and radiographic? And is

a coordinated plan of treatment established and recorded?

2. Do we perform each operation with as much finish and care as we know how to do?

3. Are we as gentle as we can possibly be, in an effort not only to considerately handle the patient in the chair, but also to do our share to spread the word that dentistry is now free of the old-time deterrent, pain?

It is humiliating to realize that there are many, someplace in the profession, who would have to answer in the negative. We see their works and hear of them every day. Yet we and the people can be thankful that many can honestly answer "yes" to each question.

THE FUTURE

Projecting our thoughts into the future, it would seem that dentistry needs and will always need restorative procedures. Only by carefully restoring lost teeth and lost portions of individual teeth to functional service can the ravages of dental decay be kept within bounds until the qualified research personnel have attained their goal.

As before, let us classify our future needs into Ways and Means, Research and Education.

Do we need new techniques and more new materials? Not nearly so much as we need a closer application of the refined procedures now at our disposal—each of which is being reviewed in full for you at this meeting.

Do we need more research in restorative dentistry as such? Yes, we should continue to seek methods by which we can apply the known fundamentals with increased efficiency and with still less strain on operator and patient, yet without loss of quality.

How shall we achieve this improvement in method and in desire to serve? Undoubtedly it will be through the medium of education, education of the graduate and of the undergraduate. Those who are already in the profession must resist the current trend to

fall prey to those who would lead us into professional and social moral disintegration. Just because some of our freedoms have been lost, we cannot ignore our professional obligation to serve the dental needs of the people. It is important that we hold fast to our ideals. By so doing we can maintain our self-respect; we can preserve the high standards of dentistry and we can encourage the proper type of young person to engage in the study of dentistry.

Along with this program for the graduate, it is obvious that the schools of dentistry must exercise the greatest discrimination in selecting their students. They must maintain a balanced curriculum, and have the good sense not to yield to pressures from some quarters to concentrate on training in basic sciences and medicine at the expense of adequate preparation in technical skill and manual dexterity.

It would be well, too, for Boards of Dental Examiners to be ever alert to their duty to maintain a high level of proficiency by insisting that the candidates whom they pass shall be thoroughly prepared, scientifically and morally, to enter this fine profession of dentistry and to serve the people as only one who has made diligent application to present-day dental curricula can hope to do.

It requires the best efforts of all concerned to practise restorative dentistry in the true sense of the name. And the best in restorative procedures is required to rebuild to health and function the mouths of the public whom we are pledged to serve.

CONCLUSION

Our past is a glorious one. In the marathon race we have received the brightly flaming torch. It is our duty and obligation to maintain the sincerity of purpose and the current momentum of improvement in the quality of our service and to do whatever we can to leave the profession of dentistry better because of us having served it.

It is within ourselves to decide which type of dentistry we shall strive to perform.

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Slowly but inexorably universal education is abolishing privilege, and benefits which have been achieved by the once privileged classes of society are now demanded by all. Improved communications, travel facilities and the broadcasting of propaganda to people who no longer even need to be able to read, are creating a new social order. Dentistry will have to find less laborious, less expensive, less time-consuming and more effective means of preventing and curing dental disease than those already at our disposal if it is to keep abreast of this movement and fulfil its destiny in the new atomic age, whose dreadful dawn lit up the sky over the eastern Pacific as the final crash of the last war reverberated into silence. — E. Wilfred Fish, C.B.E., in Br. D. Jour. Aug. 5, 1952.

In the troubled state of the world, I can think of no more economical way of preventing the spread of war and strengthening our own defences for the future than through our programs to help the under-developed nations rid their people from the burden of preventable disease and death. The world health program is indeed mutual aid—for the free peoples of the world, that is the road to peace and prosperity.—Leonard A. Scheele, M.D., Surgeon General, U.S.A. Public Health Service in Jour. Amer. College of Dentists.

The Effect of Oral Infection on the Eye and the Skin

by DONALD S. MOORE, D.D.S., Hamilton, Ontario

IT IS almost a daily occurrence for a periodontist to see patients who have been advised to have all their teeth removed, because of so-called "pyorrhea". Frequently, examination of the mouth reveals a simple gingivitis or an early chronic simplex periodontitis, with slight alveolar bone loss. A few periodontal treatments could restore the mouth to health.

The next patient is just as likely to be one with deep pockets surrounding all or most of the teeth, some extending to or near the apices of the roots with marked alveolar bone loss. The patient may have been advised by a dentist or physician to keep his teeth since oral focal infection to some is a thing of the past. They say it does not exist, according to the June edition J.A.D.A. 1951¹.

ABSORPTION OF TOXINS

Yet with a periodontal calibrated probe, the examination of the above patient shows twenty square inches of ulcerated surfaces. There is no limiting membrane to wall off the infection, as one may find with apical abscesses and there is a rich capillary supply to absorb the toxins and bacteria. It has been said that, "One believes what one wants to believe", but any thinking dentist, who incidentally takes a case history for all patients, could never be so blind as to believe some of the statements in the above-mentioned article. I have heard dentists use the excuse that infection from the mouth cannot cause trouble, so roots are retained as well as teeth that will give trouble in replacing or removing. This is done rather than refer the patient to an oral surgeon. Their reference for such action is the June edition, J.A.D.A.—"An Evaluation of the Effect of Dental Foci of Infection on Health."

In this article it was the opinion of the writers that oral focal infection does not exist except for subacute bacterial endocarditis. Yet they only emphasized apical diseases and pulpless teeth. P. J. Brekhus² stated that more teeth were lost from periodontal diseases than from caries. Too often the dentist is concerned with a very slight shadow at the apex of a properly placed root canal filling and ignores a comparatively large periodontally infected area.

If infection from the mouth is of no concern, why extract teeth? Why give a degree, "Doctor of Dental Surgery", on graduation? Is not dentistry a Health Service? The object of dentistry is to eliminate infection, restore function and to preserve the natural teeth. If this is not the case, it would be much less expensive to train mechanics.

Is pain the only criterion for extracting a tooth? If so, most teeth could be kept in the mouth, since the acute painful stage can usually be controlled until it subsides into the non-painful chronic form. Teeth, that are "hopelessly involved" from a periodontal aspect, due to long standing neglect, rarely exhibit painful symptoms and yet, if retained will eventually leave little or no alveolar ridge to support dentures when the teeth are extracted; hence the need for a proper diagnosis.

Arthritic specialists, such as Dr. Wallace Graham³, head of the Canadian Government Commission on Arthritis and Rheumatism, have been preaching for fifteen years that focal infection is not the cause of osteo and rheumatoid arthritis and associated diseases. Yet most of the above mentioned article is spent stating this well-known fact. Dr. Graham has warned against the pendulum swing-

ing too far in the opposite direction. He still advises the elimination of important foci of infection regardless of its unimportance to arthritis, in order to improve general health.

W. L. Holman⁴ has defined the principal of focal infection as, "the process of infection from an established infected focus and the secondary infection of other parts." One must consider also the absorption of toxins from infected deep periodontal pockets, causing a lowering of the vitality of the patient, even if all the bacteria entering the bloodstream were eliminated by the protective mechanisms of the body. Many patients, after the removal of considerable periodontal infection, state that they feel greatly improved. Yet, at no time was it ever suggested to the patient that their systemic complaints were due to infection in the mouth. It is just as foolish to state that the removal of infected teeth will definitely clear up some systemic aberration as it is to state that the head can be divorced from the rest of the body. It has been truly said that five per cent of us think, fifteen per cent think they think, and eighty per cent do not bother, in which case the divorcing of the head from the rest of the body may not be too serious a matter after all!

The article in question states¹⁰ "the harm that this loose use of the word 'toxin' does, is that we come to believe that we have an explanation for some phenomenon when in fact we have nothing at all. The word toxin should be used when we can isolate the harmful substance and show that it has a specific effect".

V. Menkin,^{5,6,8} has isolated different chemical fractions of inflammation and published the method of procedure. One such fraction is called necrosin, due to its necrotic effect on tissue; to quote from Menkin—"Necrosin also causes damage to vascular structures in the form of destruction to the endothelial lining. Necrosin seems to contain some proteolytic

activity. This may account for its injurious effect.

"Necrosin is absent in the normal blood stream. It can, however, be recovered at times from serum, provided there is a concomitant acute inflammation somewhere. This suggests that this material penetrates from the site of inflammation into the systemic circulation. This point is of great significance, for it again points out that the area of acute inflammation can have repercussions in organs situated at a considerable distance. This is shown to be the case".

J. W. Graham demonstrated the effect of injecting the filtrate of the exudate taken from periodontal pockets into animals, causing liver and kidney damage. Due to the many functions of the liver, the damage could have widespread results. The false assumption that "we have nothing at all", is certainly contradicted by Graham's and Menkin's work. Repeated intravascular injections of necrosin by Menkin into animals resulted in liver and kidney damage.

FOCI OF INFECTION AND SYSTEMIC REACTIONS

However, not all patients with a focus of infection exhibit systemic reaction, but that is no argument for saying it does not exist. With a school epidemic of mumps, not all children exposed to the virus, contract mumps. Some have built up an immunity. Similarly some patients build up immunity to bacteria and their products.

It has been stated by H. K. Box⁹ that the following factors interfere with the establishment of the process of focal infection:

- (1) an impermeable fibrous capsule.
- (2) a poor capillary response due to the relative inactivity of the bacteria in the focus.
- (3) the presence of high bacteriicidal substances in the blood serum.
- (4) perfect immobility of the part, which favours the healing process

and lessens the opportunity for mechanical passage of bacteria into the blood stream.

The amount of damage resulting from bacterial infections depends both on the pathogenicity of the organism and on the resisting mechanism of the host.

The assumption that oral infection does no harm systemically is equally, if not more damaging than the assumption that the removal of teeth eliminates degenerative or osteoarthritis, arthritis deformans, or rheumatoid arthritis. Not all people have a defensive mechanism working at par, and they are the ones most likely to suffer when there is considerable infection present. The best way to determine the extent or amount of infection present is to assess the area involved with a calibrated periodontal probe such as a William's or a Merritt probe and record the depth of the pockets on a suitable chart.

CASE HISTORIES

The following are two case histories apropos to the above.

Female patient, age 39, was examined dentally. One apical abscessed tooth and four hopeless periodontally involved teeth were recommended for extraction. The case history and examination revealed a dermatitis extending from the fingers to above the elbows. The patient was being treated for some months by an excellent specialist for an allergy to soaps and detergents, with some improvement. At no time was it suggested to the patient that her teeth had anything to do with her dermatitis; a policy we have followed scrupulously regarding all systemic troubles. Two days after the removal of the teeth, the patient noted a remarkable improvement. Two weeks later a kodachrome picture was taken showing that the condition was markedly improved. A slight scaliness existed only between the fingers. (Fig. 1) There was no psychological improvement as the pa-



FIG. 1

Scaliness between fingers.

tient was not led to expect it, nor was it a coincidence, considering that the medical treatment was the same as previously, nor could it be considered spontaneous. The explanation given by the dermatologist and by the allergist was simply that the toxins or bacteria had created a superimposed reaction or sensitivity. Is that principle any different from the rash one gets from the toxins of scarlet fever, measles, etc.—not likely! In any case, regardless of the explanation, the dermatitis did not clear up until the teeth were extracted.

The second case history is that of a female, age 55, who had a cataract removed from her right eye and the eye would not heal. Finally the teeth were roentgenographed, revealing an apical abscess, upper right central incisor and deep caries in the vital upper right second molar.

On removing the central incisor, (Fig. 2) the eye healed. The second molar was filled but it required capping. Two months later the patient

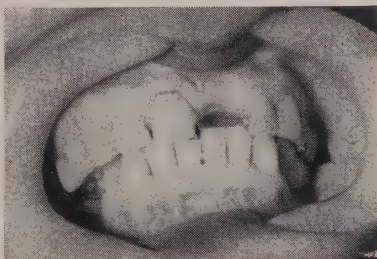


FIG. 2

Central incisor removed.



FIG. 3
Eye involvement.

returned, because the eye was markedly red showing the blood vessels extremely infected. (Fig. 3) The teeth were not sensitive to percussion, nor had the patient any dental symptoms. But due to the previous trouble she suspected her teeth. The vitality of the teeth were tested and the upper right second molar was non vital. This tooth was removed and the patient called us two days later to say how much her eye had improved. The above are only two, of the hundreds of cases we have encountered.

CONCLUSION

Focal infection has been highly overrated, but let us not discount it entirely. Toxins are produced in the periodontal pockets in areas where they are readily assimilated. With the advent of cortisone and ACTH, some writers have suggested that there can not be any harm from focal infection, but their reasoning is false.

Cortisone and ACTH merely act as a shield or buffer, they don't put out the fire. Their continued use may cause many unpleasant side reactions. Successful treatment of diseases still depends on finding the causes and removing them. There are usually more than just one cause for most diseases. Focal infection can be an important factor in the production of some systemic diseases.

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Medical Arts Building

Try as we may, none of us can be free of conflict and woe. Even the greatest men have had to accept disappointments as their daily bread . . . The art of living lies less in eliminating our troubles than in growing with them. Man and society must grow together. Each individual's efforts to discipline himself must be matched by society's struggle to enforce the rules of law and of justice under the law.—Bernard M. Baruch.

The dentist who can make patients "feel at home" in his office need have no concern over what the future may hold: his practice will be little affected by floods, drought, crop failure, or postwar depression. Without attempting to minimize the importance of good work, it must be remembered that patients are won and held by carefully organized courtesies.—Cecil H. Bliss.

The straight and narrow path would probably not be so narrow if more people walked on it.—Sunshine.

Economic Considerations in Dentistry for Children*

by EDWARD R. BILKEY, D.D.S., Toronto, Ontario

AT the outset of this paper it must be emphasized that the statements, thoughts, and ideas contained therein are entirely those of the writer, and that at no time during its presentation is the writer anxious that his audience infer that such statements, thoughts, and ideas are necessarily endorsed by the teaching institution with which he has the privilege of being associated. A subject such as this which embraces so many variables, intangibles, and precedents, many of which are so firmly rooted as to have become virtually unyielding, is not likely to be favourably received in its entirety. To quote Howard Raper, "Let us call what I have to say a kind of one-way conversation piece to be tasted before swallowing, to be swallowed or not depending on the dictates of the appetite." However, it is my hope that the following points, if they do nothing else, will clear the air of any slow-dying thoughts that the children in your general practices need be a financial detriment, even a financial loss to you.

Most of us at one time or another, having ventured to mention the mystical word "fees", have received the vague answer that such a word should only be whispered; and that if we do good work, good fees are bound to follow. In my opinion such a belief is erroneous. For in this day when people are beginning to haggle over bills which should have been paid a year ago without question and are contemplating payment of these bills with a fifty-cent dollar, it is my recommendation that we give serious thought to all the economic factors of our practices.

When each of us first went about the art of learning to establish fees, we realized that our gross earnings must

include allowances for general overhead, retirement schemes, insurance, continuing education, and other miscellaneous items. For purposes of brevity it will be assumed that each of us realizes that these are basic "musts" in fee basing, and as such they will not be discussed.

The decision that a paper of this nature be given at this session, gave rise to a number of mental queries on my part, around which the entire problem whether real or imaginary, seemed to revolve.

WHY ARE ECONOMIC CONSIDERATIONS OF INTEREST?

The most specific question that came to mind was, "Why should a paper under this title, 'Economic Considerations in Dentistry for Children', be of interest to general practitioners?" The first answer was of course, the obvious one, and is probably best stated by quoting Josh Wise who says that "Money is not everything in this world. Sometimes it isn't even 99%." This statement is perhaps a little severe but at least it lends itself strongly to the idea that we must give careful consideration to this matter of fees. Each of us is anxious to earn a living from his dental practice, which will be commensurate with good living conditions for his family, as well as providing for a reasonable inclusion of those material things upon which general happiness and peace of mind seem to depend so heavily.

The second answer was less satisfying and was that the term 'General Practitioner' in dentistry, seemed in far too many instances, to mean 'General Practitioner of Adult Dentistry'. However, for years now our profession has fast been turning its attention to

*Presented before the Canadian Society for Dentistry for Children meeting, in Toronto, May 10, 1952.

the fields of preventive dentistry and early interceptive protective dentistry. As a result of this change in the trend of thinking in our profession, we general practitioners have been encouraging the attendance of the child patient in our offices. This for some men raised a number of financial barriers and it is my intention in part, to discuss these obstacles and means which may help to overcome them.

FINANCIAL BARRIERS

The first and most ominous of these barriers is whether or not the parents of the children will share our understanding and appreciation of dentistry for children to the extent that they will be willing to pay for it. To this I would hasten to say that I have not yet found a parent who was not eager to learn about and to appreciate dentistry for children, once having had a very few minutes of dental education. In these few minutes, when they are necessary, all horse and buggy ideas are quickly dispelled; ideas such as "these are just the first or temporary teeth and therefore aren't really worth filling", or "just take the tooth out, doctor, he'll be getting another one in there anyway", or "that because they are smaller than adults only half fees are in order".

Once each of us has thoroughly housecleaned his mind of the temporary fillings and "leave-it-and-let-it-rot" attitude, and has completely established an appreciation of the integrity and need for sound restorative, preventive, and early interceptive procedures, this barrier will be lowered. In short once you are convinced, it is a simple matter to convince the parents. To this end I would illustrate with the true incident when one such ardently converted dentist was asked by a parent, "Do you charge the same for children as you do for adults?" His prompt retort was "Oh yes! We don't charge any more for children!"

In every dental office the dentist's chief asset is time. Time consumed by patients, young or old, is that factor

for which a fee must be charged. With an adult patient we have our examination, x-ray surveys, surgical procedures, periodontal treatments, routine operative measures, and more intricate and inclusive restorative and replacement procedures. With a child patient we follow a similar pattern consisting of examination, x-ray surveys, surgical procedures, periodontal considerations, and routine operative treatment. This latter tabulation it will be noted, seldom includes prosthetic treatment, but in its place there will be certain preventive, interceptive, and corrective orthodontic appliances. Needless to say, it is impossible to include such appliances without enhancing the hourly income. So it can be seen that the differences are slight, the chief difference being the size of the patient.

FEES

Assuming that the parent is now willing to pay for the child's dentistry, let us give more specific thought to fees as such, and the means whereby the fees are established. There is of course, the "Tabulation of Materials" method. In many offices, particularly for adult patients, it is a common practice to establish a specific fee in exact accordance with the treatment which has been accomplished. For example, if the dentist has successfully completed a three surface amalgam restoration in a molar, then the fee is arrived at by charging so much for the fact that it is a molar, so much for the anaesthetic, so much for this or that liner, so much because it involved three surfaces, and so on ad nauseam, charging for everything but wear and tear on the chair upholstery. This means of fee basing, even when greatly modified as it sometimes is, to me is a completely undesirable and unpleasant way of arriving at a sound fee. Granted, for years patients have been accustomed to establishing their own mental fees in accordance with the number of bits of metal and the types of metal used; so much so that a buccal pit restoration assumes little

difference in value from an M.O.D. restoration. This has been a constant sore spot because of its unfairness, and will no doubt continue to be for years to come. I have never condoned the idea of selling dental materials to my patients a bit at a time. I would rather refer them to the supply houses where they could obtain quantity rates and then bring their own supplies with them. This, however, is not a recommendation.

A second method, on the hourly or appointment basis, is a procedure followed with great success by some general practitioners. Neither is a set fee charged for each operation, nor is there any allowance made for materials as such, unless the cost of materials is particularly high in specific cases. From many viewpoints such a method is ideal, especially in the case of child patients. Here the amount of treatment that can be accomplished in a given time per child, will nearly always be compatible with the desired fee per appointment. On one occasion when this phase of fee basing was under discussion, it was stated in its defence that any hesitation on the part of the dentist in establishing a fee in accordance with the time consumed, indicated that he himself questioned the value of his own services. In hasty refutation of this, it was noted that the question was not whether we think it is worth the fee charged, but whether the parent will think that the accomplished treatment is worth the fee charged.

Of all the means of fee basing, the combined hourly and material method seems to be one of the most widely used. There are two very positive but subtle risks with this method. Sooner or later the dentist is bound to be inconsistent in his means of establishing a fee with a certain patient, resulting in obvious patient confusion and probable dissatisfaction. More common than this, will be the frequent desperate efforts on the part of the operator to cram into a given amount of time a certain amount of material service

necessitating his either running well behind time or cutting corners in order to remain on schedule.

As if the fee picture were not modernistic enough in its complexity, with the children in our practices we have the picture even more involved with a number of variables, to further confuse the general practitioner.

FOUR VARIABLES

Foremost among these variables should be mentioned "The Type of Child". Under this heading will fall the ideal normal child, which constitutes the greatest number of our child patients. Here too, however, we must include the behaviour child. This child whether because of fear, belligerence, environment, or physical handicap, must receive special consideration and in many instances the same amount of treatment as done for the normal child, cannot, and must not, be achieved in a comparable length of time. Perhaps it would be wise to include here the age factor, but in my office there is little difference between a good three-year-old child and a good ten-year-old.

Second only to the "Type of Child" in importance as a strong influencing factor in fee establishment, is the presence of the parent or parents in the operating room. I frankly admit that I am not a one hundred per center in keeping the parents in the reception room, but, however, I am glad to state that I am probably a ninety-five per center. With this remaining five per cent whose parents are permitted in the operating room, it is found to be virtually impossible to produce the maximum amount of treatment, and at the same time increasingly more difficult to ideally control the child patient. It is only natural that on these occasions, far too much time is devoted to trying to carry on an intelligent conversation with the parent—the alternative being to turn an almost cold and surly shoulder to the adult. Too, the parent's very presence is an undesirable distraction, time often be-

ing sacrificed by repetition of the dentist's requests, or by offering such comforting verbal setbacks as "There, there, dear, the doctor is almost finished now". Of course, such comments are usually made when the appointment has just nicely commenced. Even my assistant's presence in the operating room is minimized as much as possible, for the presence of any third party seems invariably to break the bond of cooperative understanding between the child and myself.

Thirdly, there are the very complicated restorations which can, and often do, utilize an amount of time disproportionate to that consumed for average restorative procedures. Here, unfailingly, it is my ardent desire to glance at my watch and set down a fee that is in complete harmony with the completed time; but at this juncture a little voice from the dark interjects, "But doctor, that's only one filling." One general practitioner, when asked about this problem and when told of my desire to charge exactly what I deemed to be fair in view of the time consumed, offered what I thought were some sound opinions. Ideally, he agreed with charging for the time that had been spent, but as a modification of this ideal he mentioned what I shall consider as the fourth variable of fee basing.

That is, the seemingly marked degree of variation in the ability of dentists to render a comparable amount of treatment per given time. This, unquestionably, is true, but so too is it a fact, I feel, that there is a definite average amount of restorative treatment that can be accomplished per appointment, per child, by the average general practitioner. The only real danger is the human element, which would permit a dentist to wilfully accomplish the minimum amount for the maximum fee, and attempt to justify his actions by his watch. Here, the obvious hazard could be the loss of his practice.

It is in my nature to want to conduct my general practice with the least

amount of friction, and at the same time to make a full productive usage of the appointment times that have been set aside. In order to do this, the above-mentioned four influencing factors are eliminated as far as possible.

PRACTICAL PROCEDURE

Firstly, the average child is given an average length appointment, usually one half hour to an hour, during which time it is generally found completely practical to produce sufficient dentistry to justify the fee charged, both from the parents' standpoint and from my own. Here I should mention, that I find this can be much more readily achieved when caring for the primary teeth than when treating the permanent. It might be well to digress here for a moment in the specific interest of the recent graduate, whose speed and confidence have yet to reach maturity. For those who fall into this category, may I tactfully suggest cautious consideration of the above fact, perhaps seeking the advice of several local established general practitioners, in order to avoid overcharging. I am not at this time questioning the quality of the treatment rendered, but am merely cautioning against charging for gaining experience. Certainly the higher the quality of the service rendered, the higher the fee, but time alone will instill this appreciation in the minds of your patients.

For the so-called problem children I render as much treatment as possible and charge in exact accordance with the time consumed, and seldom, if ever, receive a complaint from the parents.

Secondly, the parents are nearly always requested to remain in the reception room.

The third variable, the problem of the complexity of the treatment, can in many cases be eliminated in one or both of the following ways:

By careful treatment planning. When a youngster requires a number of restorations, some of which are diffi-

cult and some simple, an effort is made to combine one or more of the simple and the complex procedures in each appointment, depending upon the length of time available. This measure will often avoid having several very difficult appointments, followed by several time-wasted appointments. At the conclusion of each visit a brief notation is made of what is to be done during the next appointment, which helps to avoid any delay in starting.

By giving an estimate. There are those who strongly decry giving an estimate and there are those who are equally averse in their approval. Those against estimates will say that you are selling materials, and this in part is true, depending upon how the estimate is given. It is my practice, when giving an estimate, which is the case with nearly all large accounts, to say to the parents, "No doubt you would appreciate knowing approximately what the fee will be to complete your child's dental treatment." Candidly, I believe that the parents do appreciate knowing the approximate cost but the above phrasing offers an easy means of discussing money without being cold blooded, and without mentioning the number of fillings and extractions, and such, that are necessary, as well as permitting ideal allowances for difficult treatment. This method is not adopted in every case, particularly on recall visits with well-established patients who are familiar with the fees charged. At all times when an estimate has been given and the parents have requested to pay at the end of each appointment, it is suggested to them that they pay whatever amount is convenient at this time, and that the balance of the account will be rendered when the treatment is completed. This avoids misunderstanding and embarrassment on occasions when the appointment fee has exceeded the amount carried by the parent.

To the above basic factors in fee basing, and their influencing variables, I would like to add a few subordinate features, which tend to produce a more

satisfactory financial foundation for my practice.

SUBORDINATE FEATURES

There is in my office a reasonably accurate time allotment for recall appointments. This time is evaluated in accordance with the susceptibility of the child and the likelihood of new caries; the likelihood of possible eruption irregularities and potential malocclusions which may necessitate detailed observation and charting.

The request to "Just take a look at the other child that came along please," is usually discouraged if possible. This, if accurately translated, usually means "Would you please take time to take a free look at my child?" An inadequate examination may temporarily satisfy the parent much to the youngster's future sorrow; for a quick look will seldom reveal the true picture. However, good public relations and common courtesy should guide us in our decision.

Accurate assessment of time for consultation appointments, or for patients seeking advice is difficult, but such appointments are usually made bordering on a lunch hour where a favourable leeway can be created.

One of the most important features of any practice is the employment of a cooperative and competent assistant. The presence of such help will greatly increase the number of patients that can be seen per week. On an average, ten to twelve youngsters can be seen per day with an assistant. The average new child patient needs from three to five appointments per year for routine fillings alone or about two-and-a-quarter to two-and-a-half hours per year. Many will need considerably more appointments where any preventive measures such as space maintainers, or corrective orthodontic appliances are needed. This, coupled with the backlog and current accumulative rate of dental disease, renders a capable assistant an invaluable and necessary ally.

Another feature in connection with

appointments is the charging for those which are broken. This is carried out reluctantly and only for chronic repeaters and never when the excuse is at all reasonable. In an attempt to avoid broken appointments, each patient is given an appointment slip which includes a notation of a charge which will be made for appointments which are broken without due warning. As a further precaution all appointments are confirmed by telephone (when practical) the day before. This has one possible bad effect, that of having the patients rely upon the telephone reminder instead of their own memories; but essentially, it is not done for their benefit.

Another point which is also a financial attraction of dentistry for children is that the laboratory and supply bills are greatly reduced at the end of each month when a large number of children have been seen.

Once having entered this maze of concrete and abstract facts, situations and possibilities that are associated with fee basing in the general practice of dentistry, I emerged, dazed but satisfied: satisfied that the ideal means of fee basing for children was by the hour or by the appointment. Again from Howard Raper's article, "Broadly, very broadly, every time a fee is set and paid, one of three things happens. One: the patient has been sacrificed to the interests of the doctor. Two: the doctor has been sacrificed to the interests of the patient. Three:

the interests and welfare of both patient and doctor have been protected." The more I practise general dentistry, the more convinced I become that the hourly or appointment method can be safely, honestly, and remuneratively utilized for the child patients in our practices, thereby protecting the interests of both patient and dentist. And so the scattered pieces of this puzzle unite to form a scene of moral justification, material satisfaction, and gratifying recompense.

CONCLUSION

In conclusion, I would say that the children in my practice give me far greater pleasure and satisfaction out of practising dentistry than do the adults. Along with this, dentistry for children provides a much nearer ideal basis for establishing and receiving a sound hourly or appointment fee, which at the same time will seem justified from the parents' point of view. What the hourly fee should be depends directly upon the ratio of your overhead to your desired earnings. Just as we will often greatly modify our fees for some, so should we be permitted a certain leeway in the other direction. This does not mean exploitation, but merely a reasonably fluctuating fee basis which can include all exigencies.

The child in my office is a welcomed person, a desirable patient, and not a financial detriment.

2781 Yonge Street

The great philosopher, Montesquien, gave the answer as to how to make a better world:—"If I knew something beneficial to myself but harmful to my family, I would drive it out of my mind. If I knew something advantageous to my family, but injurious to my country, I would try to forget it. If I knew something profitable to my country, but detrimental to the human race, I would consider it a crime."

The best barometer of a nation's future is the ability of the people to co-operate and to have confidence in their leaders—Newton D. Baker, former Secretary of War for the United States.

The wealth of experience is one possession that has not yet been taxed. — Santa Fe Magazine.

Memorials and Their Possibilities

by FRANK MARTIN, D.D.S., Toronto, Ontario

Prepared for the Endowments Procurement Committee of the Faculty of Dentistry,
University of Toronto—Applicable to all dental colleges

IN the daily press and journals such items as these have appeared:

A Polish immigrant arrived in New York in 1947. He and his wife received a small monthly amount from a fraternal organization to help get established. About a year later he persuaded them to loan him \$4,000.00 to start business. Last year his company did a \$10,000,000 business. This year he received his American citizenship and, as a token of gratitude on that occasion, he gave \$10,000.00 to a university to assist needy students.

A veteran of World War II was killed by a thug escaping from the police, leaving a wife and daughter. Recently a Toronto police officer was shot and later died from wounds, leaving a small family. Another public benefactor who was born in one of the European countries provided the daughter of the first and a son of the second incident with annuities to provide for their higher education. Undoubtedly, the recipients of these gifts will ever remember the donor and will be a living memorial as long as they live.

It is difficult for everyone to emulate the example of these two gentlemen but there may be various ways and means to provide a memorial fund scholarship. Local societies could from time to time collect a dollar or two and build up a fund to the amount necessary for a scholarship.

There have been in the past and still are outstanding individuals who have made valuable contributions to dentistry and dental science. They have given freely of their time, means and talents to further the advancement of the profession. Memorial funds could be named for these persons. Although large donations are always very acceptable, nevertheless a person should not be excluded from participating in a worthy endeavour. It is suggested that these funds be started and contributed to until a sufficient amount is available for a memorial fund scholarship.

As a donation to the organization that gave our Polish friend an opportunity to get established, so your donation to a university memorial may help some student on his way to a successful professional career.

Viewed historically, it would seem that respect for fact is more difficult for the human mind than the invention of theories.—Bertrand Russell.

"If we were half as anxious as we try to make people think we are, we would accomplish twice as much."

"Flattery never hurts a man unless he inhales it."

*There is a destiny that makes us brothers,
None goes his way alone;
All that we send into the lives of others
Comes back into our own.*

—Edwin Markham

The Forum

THE EFFICACY OF CARIES CONTROL MEASURES

by NOEL D. MARTIN, M.D.S. (Syd.)

Department of Preventive Dentistry, University of Sydney

Summary of paper in Australian J. of Dent.

1. (a) Simple oral hygiene procedures, that is, brushing the teeth, can materially reduce the incidence of new dental caries in young adults, although similar studies on groups of children show less marked effects of good oral hygiene on dental caries activity.

(b) The use of a dentifrice containing dibasic ammonium phosphate and urea has not shown a clinical effect in reducing dental caries activity as would be expected from in vitro studies of this type dentifrice.

(c) Penicillin incorporated in a dentifrice to the extent of 500 units per gram will reduce caries activity in children by nearly 60 per cent.

2. Impregnation of the enamel based

on the Gottlieb Theory of caries has not been shown to be effective in reducing caries incidence.

3. Individual dietary control may be successfully used in cases of rampant dental caries by restricting the intake of refined carbohydrates.

4. Fluorides are effective in reducing dental caries incidence.

(a) Topical application of a 2 per cent solution of sodium fluoride following the method advocated by the United States Public Health Service will reduce newly carious tooth surfaces by 40 per cent.

(b) Fluoridation of communal water supplies has been shown to be a safe, economical, practical and effective method for the partial mass control of dental caries.

MISUNDERSTANDINGS ARISE

by HAROLD HILLENBRAND, D.D.S., Chicago, Ill., Secretary of the American Dental Association

Excerpt from North-West Dentistry, April 1952

There is no question but that there is a good deal of misunderstanding about certain aspects of dental practice. This is particularly true about the need and value of dental services. When these factors are not clearly explained — by the use of chairside, patient education—the subject of dental fees is likely to be a major item in the development of bad relations with the patient and thus with the public at large.

At the level of the individual dentist, the patient has a right to know the basis for the fees which are charged. Such an explanation should include an analysis of these factors: (1) value of the service to the patient in terms of health and well-being; (2) value of the service in terms of the skill and knowledge needed to produce it; (3) value of the service in terms of the training and experience of the individual dentist; (4) value of

the service in comparison with other, less essential services, purchased by the patient routinely at comparable costs.

At the level of the dental profession in any given community, there should be an organized program for handling the complaints of dissatisfied patients. While it is recognized that many of these complaints are completely unjustified and usually arise out of a misunderstanding of the technical problems of dental service, nevertheless they should be given attention so as not to impair the confidence of the public. One of the best mechanisms for handling such complaints is through the agency of the local dental society and an established grievance committee — though that need not necessarily be its name. Every dental

society, in accordance with the wishes of the House of Delegates of the American Dental Association, should provide some mechanism whereby the patient who is, or feels, aggrieved can receive prompt, courteous and equitable handling of his case. In recent years there has been an increased number of persons and groups interested in impairing the confidence of the public in regard to the health professions so as to serve narrowly selfish and political ends. The great example of permanent injury to the prestige and standing of a profession can be seen in England where politically motivated efforts did much to convince a large part of the public that the dental profession was interested only in gain to itself and not in the production of a health service.

MEDICAL ASPECTS OF SOCIAL SECURITY

Statement by the World Medical Association

Condensed from *Br. D. Jour.*, Aug. 2, 1952

The World Medical Association comprises in its membership the national medical associations of 43 countries, which have a total membership of nearly 700,000 doctors. In considering standards to be adopted in any medical care plan, the basic philosophy and the detailed principles governing such plan, as formulated by this international body, should be taken into account and given careful study.

Social Security is a concept of great interest to doctors. Its aims—to make possible the development of healthy and happy human beings. The views of doctors have become close to those who have inspired the internationally adopted definition of health as complete mental, physical, and social well-being.

The average man cannot appraise the relationship between services rendered and equivalent returns, or judge whether he is getting a fair deal. He will tend to disregard the cost, and always suspect that he does not get a return for his money if, through taxa-

tion, he pays a lump sum for a number of benefits, each one of which seems to him to be small. If these taxes are high he will be further encouraged to demand more in return, and this, often for political reasons, generally leads to increased returns and to new benefits—at increased cost, increased taxes, and increased or renewed displeasure, all of which endanger mental well-being.

However, as a social security scheme can do anything between two extremes—one leaving the medical profession entirely free, and the other transforming it into a group of whole-time employees—the General Assembly of the W.M.A., at its meeting in Geneva, 1948, set down the following 12 principles of social security as expressing the views of the profession on the relationship between itself and social security.

TWELVE PRINCIPLES

Whenever medical care is provided as part of social security, the follow-

ing principles should govern its provisions:

1. Freedom of choice of physician by the patient. Liberty of physician to choose patient except in cases of urgency or humanitarianism.

2. No intervention of third party between physician and patient.

3. Where medical service is to be submitted to control, this control should be exercised by physicians.

4. Freedom of choice of hospital by the patient.

5. Freedom of the physician to choose the location and type of his practice.

6. No restriction of medication or mode of treatment by physician except in case of abuse.

7. Appropriate representation of medical profession in every official body dealing with medical care.

8. It is not in the public interest that physicians should be full-time salaried servants of the Government or social security bodies.

9. Remuneration of medical services ought not to depend directly on the financial condition of the insurance organization.

10. Any social security or insurance plan must be open to the participation of any licensed physician, and no physician should be compelled to participate if he does not wish to do so.

11. Compulsory health insurance plans should cover only those persons who are unable to make their own arrangements for medical care.

12. There shall be no exploitation of

the physician, the physician's services, or the public by any person or organization.

A powerful factor in recovery from illness and in restoration to health is the sense of personal responsibility of the patient for what happens to him.

Modern medical thinking stresses the balance of mental and physical factors in the health and well-being of the individual. Any social security scheme which stresses one factor and neglects the other will disturb this balance to the disadvantage of the individual.

RECOMMENDATIONS

Therefore it is recommended that:

1. When social security schemes are necessary, they should be developed in the closest collaboration with the medical profession. Such schemes should take into account the psychological effect on the beneficiaries of increased dependency and diminished responsibility.

Therefore,

2. The fundamental aim of a social security scheme should be to raise the individual to a level at which he can help himself. From this it follows that:

3. Any social security scheme should contain elements that encourage self-reliance and a sense of personal responsibility, and that:

4. Any social security scheme should stress the obligation of the individual to make at least part of his contribution directly to the functioning and costs of the scheme.

WILL HYPNODONTIA REVOLUTIONIZE DENTAL PRACTICE?

by JAMES T. KILLEEN, B.S., D.C. and ROBERT R. HEUDORF, D.D.S.

Condensed from Jour. of Ohio State D. Assoc., Aug. 1952

It is our sincere opinion, as well as that of many forward looking doctors in the dental and medical professions, that the scientific application of hypnosis in dental practice will eventually do much to remove present inadequate methods for the handling of nervous and excitable patients.

Hypnosis is not a cure-all but the proper application of hypnotism will play a decisive role in the development of painless dentistry.

For simplicity sake, the three stages of the hypnotic trance are namely, light or hypnoidal stage, medium stage, and the deep or somnambulist

state. Thirty-five per cent of the patients are affected in the light stage. Thirty-five per cent of the patients are affected in the medium stage. Twenty-seven per cent of the patients are affected in the deep stage.

The reactions of patients with hypnosis in conjunction with a local follows:

- a. Fear subsides making it easier to use a chemical anaesthetic.
- b. Facial muscles relax making it easier for the dentist to work.
- c. Better cooperation of patient such as relaxing of tongue, gagging held to minimum, reaction of fear controlled.
- d. Patient feels no fatigue after operations.
- e. Patient returns sooner for subsequent dental work.

Our only conclusions on the disadvantages found so far are:

1. That for insane, or feeble-minded

people, and children under 3 years a local or general anaesthetic is far superior.

2. Although about 97 per cent of the patients are hypnotizable, the time required on conditioning some patients is considerable. Of course, the skill of the doctor, his personality and reputation are important factors here.

3. The air of ignorance, superstition, and fear of the unknown is foreseen in some cases, making induction very difficult and time consuming.

4. Our last negative conclusion is "sensationalism". By this we mean the flamboyant claims of some doctors that they do not use chemical anaesthesia any more, only hypnosis. We know from our own observations that this is not the case. We believe hypnodontia is here to stay. When fear, ridicule and superstition are conquered by public education, this scientific work will go a long way in the evaluation of dentistry's war against pain.

TREATMENT PLANNING FOR ADJUSTING ARTICULATION

by RALPH H. BOOS, D.D.S.
Minneapolis, Minn.

Summary of paper in Jour. of Prosthetic Dentistry, May 1952

In patients with extremely unfavourable jaw relations, surgery may be indicated as a treatment to create a more nearly normal articulation of teeth and to achieve an aesthetic improvement. A careful analysis of the jaw relations from rest position and the possibilities of restorative dentistry should be explored before surgery is planned. Some prognathic cases are greatly improved by increasing the vertical dimension because the mandible moves downward and backward as it is opened. When surgery is planned, casts are articulated in the relation of the supposed surgical result. Splints are constructed or wiring is planned in cooperation with the surgeon in order to facilitate the process.

Much of the rehabilitation treatment could be avoided by early care and preventive dentistry. The loss of a

single tooth without replacement may cause a collapse of the dental arch and a shifting of teeth which may result in a damaged dental occlusion, periodontoclasia, and perhaps temporomandibular disturbances. Today, people are more desirous than ever of maintaining dental health and function. Dentistry is able to provide treatment for many of the dental anomalies.

This summary of treatment planning provides a general classification of the various procedures which may be used in adjusting articulation. There are many individual techniques which may be followed for the treatment of faulty articulation. Fortunately, many men have suggested techniques in the literature which provide a background of study for each procedure which may be used.

ANNOUNCEMENTS

● **NUTRITION PHOTOGRAPHIC CONTEST**:— The Nutrition Division of the Department of National Health and Welfare announces a Contest for photography depicting some phase of nutrition work in Canada. The Contest opens October 1 and closes December 31, 1952. The Contest is open to all Canadian dentists, excluding professional photographers and employees of the Nutrition Division of the Department of Health and Welfare and their immediate families.

Any number of 8" x 10" glossy prints may be submitted, together with name of entrant, address and names of persons, if any, in photograph.

First Prize \$100.00. Second Prize \$50.00. Ten additional prizes of \$10.00 each to the best entry, not already a prize winner, from each province.

For further information apply to Contest Editor, Nutrition Division, Dept. of Health and Welfare, Ottawa, Canada.

● **UNIV. OF TORONTO, FACULTY OF DENTISTRY CONTINUATION COURSES** for graduates in Dentistry:—**PERIODONTICS**, Jan. 19-23 under direction of Drs. H. K. Box and C. H. M. Williams. Fee \$75.00. Enrolment Limit 14. **CEPHALOMETRIC TECHNIQUES**, Jan. 26-28, under direction of Dr. Robert E. Moyers with Dr. H. Margolis of Tufts College as guest clinician. Fee \$50.00. Enrolment Limit 10. **OPERATIVE DENTISTRY**, Feb. 16-20, under direction of Dr. P. G. Anderson. Fee \$75.00. Enrolment Limit 10. **DENTAL RADIOLOGY**, Feb. 23-27, under direction of Dr. J. E. Moser with Dr. H. M. Worth as guest lecturer. Fee \$75.00. Enrolment Limit 12.

Apply, The Dean, Faculty of Dentistry, Univ. of Toronto, 230 College St., Toronto 2-B, Ontario.

● **ANNUAL WINTER CLINIC, ACADEMY OF DENTISTRY, TORONTO**, Royal York Hotel, Thursday, November 27.

Limited Attendance Clinics:—

Dr. O. C. Applegate—Ann Arbor, Michigan.
Subject: "Complete Denture Prosthesis"

Dr. George A. Morgan—Toronto, Ontario.
Subject: "Oral Surgery"

Luncheon speaker—Joseph McCulley, Warden of Hart House,
Univ. of Toronto.

Those living outside of Toronto apply for detailed program to Dr. W. O. Nursey, 86 Bloor St. W., Toronto.

● The **MARITIME DENTAL CONVENTION** is to be held at Keltic Lodge, Ingonish Beach, Sept. 3-5, 1953.

● **THIRTY-FIRST GENERAL MEETING OF THE INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH** March 20-22, 1953, Philadelphia, Benjamin Franklin Hotel.

● **MINNESOTA STATE DENTAL ASSOCIATION** Convention, February 16-18, Minneapolis, Minnesota.

● **TEMPLE UNIVERSITY ANNOUNCES POSTGRADUATE COURSE IN OCCLUSO-REHABILITATION** for one week commencing February 2, 1953. Enrolment limited to 25. Cost \$300.00.

Apply to Dr. Louis Herman, Temple Univ. School of Dentistry, 3223 North Broad St., Philadelphia 40, Pa.

● **WESTERN CANADA DENTAL SOCIETY CONVENTION** will be held at Jasper Park Lodge, Jasper, Alberta, June 7-11, 1953.

As we look back on the one hundred and eleven years of our recorded American dental profession, from the beginning, even as today, the literature has been the corner stone and the foundation upon which rests the entire well-being of the profession. Build it constantly, guard it jealously.—Harry B. Hambly, Jr., DDS, in *Jour. Am. College of Dentists*.



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Editorial

IT CAN BE DONE

Nothing is more fascinating than the romance of great achievement under difficulties, the stirring stories of strenuous endeavour and final victory. One might speak of Thomas A. Edison who at fifteen was a newsboy on the Grand Trunk Railway. He passed through one dramatic situation after another—always mastering it—until at an early age he attained the scientific throne of the world. Sir Thomas Lipton was the son of a poor laborer who was scarcely able to give him any schooling at all but he was ambitious. He went to New York and lived on a few cents a day and could hardly buy a five-cent stamp to carry a letter to his parents in Glasgow. Later upon the occasion of converting the Lipton business house into a "Limited Company" more than two hundred million dollars were offered in two days; the mail for those two days comprising forty thousand letters from every part of the United States. Son of a butcher, Anton Dvorak began his life in poverty and obscurity and ended it in affluence and fame as one of the most prominent composers of his day. John Kent Cooke, probably Canada's youngest self-made millionaire at present, earned eleven dollars a week when he first commenced work. "*It Can Be Done.*"

One could continue indefinitely outlining the achievements in all fields of endeavour, but this article is being written to show what can be done in the field of dentistry from a lowly beginning. The example chosen is the illustrious New York City dentist, Doctor Arthur Hastings Merritt.

Dr. Merritt's ancestors came to America from Kent, England, sometime before 1626 and descendants later drifted westward in Massachusetts and eventually crossed the Connecticut River and settled in the Township of Conway, the birthplace of Marshall Field. A farm in the adjoining town of Williamsburg provided them with most of their needs. They worked hard, lived frugally and were a hardy and self-reliant people.

Arthur was the oldest of six children. As a small boy he fed the chickens,

brought in the eggs, drove the cows to pasture in the morning and went for them in the evening. The home contained only the bare necessities of life. A wood stove in the kitchen furnished the only heat in the house. The bedrooms were icy cold in the winter. Books were as scarce as neighbours. There was the family Bible, two volumes of the Civil War and two books of Bible stories which Arthur read and re-read, rejoicing with Joseph and marvelling at Pharaoh's hardness of heart, and he learned to think of God as being interested in the children of men.

The father died when Arthur was ten years of age. His mother was 31 years old and there was a five months old baby sister. There was still a \$1600.00 mortgage on the farm. All the older children made some contribution towards the support of the family. During the summer Arthur worked for neighbouring farmers at sixty-five cents a day. Blueberries were plentiful and could be sold at eight or ten cents a quart. This helped to buy groceries that the farm could not supply. Having a mother with an abiding faith in God, whom she knew better than her neighbours, family prayers and Bible reading each morning was the order of the day.

When Arthur was sixteen the family moved to Northampton with little more than the hundred dollars received from the auction at the farm and all earthly possessions loaded on a single farm wagon. Arthur attended the High School at Williamsburg and lived with the owner of the country store where he worked for room and board and a wage of \$1.00 a week. The following year, as his mother needed his support, he went to Northampton and got a job in a button factory at \$3.00 a week for 60 hours work. Later he got a job in a basket factory where he was paid 45c a hundred for making market baskets. He was soon able to make from two to three hundred baskets a day. Then he got a job in a cutlery shop at 85c a day and later became an inspector at \$1.35 a day. During these years he laid the foundation for his love of reading by borrowing books from the library.

As younger brothers had reached the point where they could help support the family, Arthur left home at twenty years of age with \$10.00 in his pocket and with a friend, canvassed for books, and later for enlargement of portraits, but he never overlooked the fact that these jobs were only a means to an end.

An interesting story surrounds Arthur's initial interest in dentistry. He determined to become a dentist and when he had saved up \$500.00 he entered the New York College of Dentistry in 1892. He burned the midnight oil at college, and during Christmas holidays and in the summer he went back to his old job as salesman. At the end of the second year he was broke. However, his good angel who seemed always to have been with him opened up the way for him to obtain a position with a dentist by the name of Dr. Doty. This experience proved invaluable and from that time Arthur never had any doubt about miracles.

Arthur was graduated in 1895 and his name appeared among the four on the Honour Roll as having maintained the highest scholastic average throughout the entire course. He was also awarded the medal for the best work in oral surgery. He believed then, as he does now, that he had been divinely guided. He began practice as an assistant in Dr. Doty's office and was busy almost from the first. When Dr. Doty retired, Dr. Merritt took over this practice in New York City.

As years went on Dr. Merritt began to give more and more attention to periodontology and finally decided to limit his practice to that specialty. With this in mind he took into his office two associates and for more than thirty years this association continued with never a disagreement.



Dr. Merritt's home in New York City

In 1907 Dr. Merritt, with the co-operation of a few volunteers, organized several school dental clinics, the first of such clinics in the U.S.A. Dr. Merritt acted as chief of staff and secretary, making weekly visits to the various schools.

In 1918 Dr. Merritt was elected President of the First District Dental Society of New York. In 1923 he was elected a Fellow of the American College of Dentists and was President of this organization in 1938. In 1931 he was elected Fellow of the Royal Society of England due, in part, to his text-book "Periodontal Diseases, Diagnosis and Treatment." In 1932 he was awarded the Fauchard Gold Medal and a beautifully inscribed citation. In 1937, by invitation, he presented a paper before the American Dental Society of Europe, which meeting was held in Paris. In 1938 the honorary degree of Master of Science was conferred on Dr. Merritt by the University of Michigan. He joined the American Academy of Periodontology in 1918 and was made President in 1925. In 1939 Dr. Merritt was made President of the American Dental Association with its now 75,000 members, the highest office within the gift of the dental profession in the U.S.A. He was a charter member of the New York Academy of Dentistry, was President for two years and in 1939 a testimonial dinner in his honour was given by the Academy at the Hotel Ambassador in New York City. In 1940 he was awarded the Jarvie Gold Medal for his contribution to research and the art and science of dentistry. In the same year, the University of Maryland at an Academic Convocation held during the Dental Centenary Celebration at Baltimore conferred on Dr. Merritt the degree of Doctor of Science, he being President of the American Dental Association at this time.

It was Dr. Merritt's privilege to have had a part in the establishment of the great Guggenheim Dental Clinic in New York.

During this same memorable year the First District Dental Society of New York gave a testimonial dinner to Dr. Merritt, presenting him with a solid gold



One Section of Dr. Merritt's collection of old Staffordshire China

life membership card, and Columbia University conferred on him the degree of Doctor of Science. In 1940 also, he was awarded the Dr. John R. Callahan gold medal by the Ohio State Dental Society. In 1945 the honorary degree of Doctor of Science was given by the New York University. In 1950 he was awarded the Henry Spenadel gold medal by the First District Dental Society of New York.

Dr. Merritt is a Fellow of the American Association for the Advancement of Science, a Fellow of the Royal Society of Medicine in England, also a Fellow of the American Academy of Periodontology. He is a member of the American Museum of Natural History, the New York Historical Society, the Museum of the City of New York, the Society for the Preservation of New England Antiquities and the Allied Artists of America. He is an associate member of the American Medical Association and an honorary member of the 2nd District Dental Society of New York and also of the American Dental Society of Europe. Less than two months ago Dr. Merritt was installed as President of the American Academy of the History of Dentistry, an organization which came into being a little over a year ago.

It is common knowledge that Dr. Merritt displays a love for the finer things of life. He possesses an unusual selection of paintings by many of the best American artists. His collection of old Staffordshire china containing many rare specimens is one of the largest in the United States. Soon after the war of 1812 the English potters in an endeavour to create a market for their tablewares in the U.S.A. conceived the idea of decorating them with American views. At present more than seven hundred pieces have been identified and catalogued.

The smallest and rarest is the seal of Connecticut, the highest auction price being \$1800.00.

He has a complete set of American Commemorative Postage Stamps beginning 1893. In his library will be found complete sets of the leading American dental journals.

Dr. Merritt has maintained his dental activities for over fifty years and is still in active practice. During those fifty years he has endeared himself to all who have had the privilege of receiving the stimulus of his sterling qualities. He has been very happy in the practice of dentistry as it offered daily opportunities for service, made possible the meeting of many interesting and distinguished persons and furnished him with the wherewithal by which he has been able to provide for his family, lend a helping hand to many worthy causes and to those less fortunate.

A large book would be required for an adequate biography of Dr. Merritt, a man of exceptional qualities and abilities, a man of high purposes and sustained fidelity in public services. Only the fringe of his achievements have been enumerated in this article but it is the hope of the writer that some of our younger dentists, as they read, will agree with the favourite maxim of Beethoven, "The barriers are not yet erected which can say to aspiring talent and industry 'thus far and no further'". Such a theme is as old as the human race but should be more interesting to the young than any fiction. This study teaches that the most forbidding circumstances cannot repress a yearning for growth, that "poverty has rocked the cradle of the giants who have wrung civilization from barbarism and have led the world up from savagery to the Gladstones and the Lincolns." "Every germ of goodness will at last struggle into bloom and fruitage and true success follows every right step." Character is success and there is no other.

We will conclude with Dr. Merritt's own words, the closing few sentences of his address given before the New York Academy of Dentistry at the testimonial dinner given in his honour by that Academy:—"When I joined my District Dental Society that first year after graduation I did not do so because I thought that some day I might be President of the First District Dental Society. That thought never occurred to me. I did it because I felt it was my duty to do so. It is in that spirit that I have done the day's work. And if in the doing of it, I too, have played the game of life in such a way as to have your commendation, credit should be given, not to me, but to others—to my mother, wife, sisters and friends, and too, to that great creative Artist who moulds and shapes the lives of all of us, whose guiding influence I have never doubted, since that day as a little child, I knelt at my mother's knee." *"IT CAN BE DONE."*

M.H.G.

A true social security system is one that offers a moderate amount of protection against certain mass hazards of living without discouraging thrift and individual initiative. It must be a prop to self-reliance, not a substitute for it. Its cost, likewise, must be moderate, for otherwise it soon will be creating the economic and social ills it seeks to cure.—Howard Friend, Research Director of Indiana State Chamber of Commerce.

"Suppose I make a thousand experiments and everyone fails. All right—I have learned a thousand things that won't work."—Chas. A. Edison.

BOOK REVIEW

YOUR CHILD AND MINE—THE STORY OF DENTAL HEALTH, prepared by the Dental Public Health Committee of the Ontario Dental Association. Committee of Contributors are:—A. W. S. Wood, D.D.S., Chairman; R. R. Butler, D.D.S.; G. T. Mitton, D.D.S., D.D.P.H.; S. A. Macgregor, D.D.S., F.I.C.D.; E. R. Bilkey, D.D.S.; J. B. Macdonald, D.D.S., M.Sc. (Ill.); W. J. Dunn, D.D.S.; R. J. Vince, D.D.S., Advisory Members, H. A. Swales, D.D.S., F.I.C.D., D. W. Gullett, D.D.S., F.A.C.D.; Other Contributors:—E. W. Henry, M.A., PhD., F.R.S.C.; C. H. M. Williams, D.D.S., B.Sc. (Dent); G. Nikiforuk, D.D.S., M.Sc. (Ill.); W. K. Shultis, D.D.S., Associate Editors, A. W. R. Doan, M.A., D. Paed.; Chas. Hewitt, B.A., B. Paed.; C. B. Routley, M.A., PhD. Photography—G. H. Lofts, R. T. Coleman, B.S. 39 pages and over 70 pictures and illustrations. Distributed by the Canadian Dental Association and the On-

tario Dental Association both of 234 St. George St. Toronto. Published by Ashdown Johnson Ltd. and copyright Ontario Dental Association.

This is an excellent little book dealing with dental care and children. There are six parts to it with titles as follows:—The First 2½ Years; The Child Goes To The Dentist; The Permanent Teeth Arrive; Good Nutrition And Dental Health; Occlusion; Suggestions For Teaching Dental Health.

The book is compact and the material is well presented through good organization and profuse illustration. There is much valuable information in dental practice for children and it is written so the layman can understand the message. With the necessary emphasis on dental care for children this book is a must in every dental office. The dentist will want to read it first, then place it in the reception room.

T.R.M.

ROYAL CANADIAN DENTAL CORPS NEWS

Colonel C. B. H. Climo, Deputy Director General Dental Services, Lt-Col. G. B. Shillington, Senior Consultant, and Lt-Col. S. K. Oldfield, a member of the Instructional Staff of the R.C.D.C. School were in attendance at the meetings of the American Dental Association held at St. Louis, Mo., September 8-11. Lt-Col. Shillington also attended the meetings of the American Denture Society.

Major H. W. Hart of the R.C.D.C. School, presented a clinic on "Mouth Preparation in Partial Denture Procedure," at the meeting of the Eastern Ontario Dental Association.

Majors G. C. Evans and H. S. Lankin and Captains J. R. Harms, P. S. Sills and W. J. Thomson, Quartermaster, have returned to Canada following a tour of duty with 25 Canadian Field Dental Unit in Korea. They have been replaced by Majors W. W. Anglin, E. D. Fraser and A. R. Smith and Captains A. G. Andrews, W. R. Thompson and J. W. Fletcher Quartermaster.

It was the privilege of all R.C.D.C. officers in the Ottawa area to attend an interesting and instructive lecture on "Plastic Filling Materials" given by Colonel Theodore E. Fischer at the R.C.D.C. School on Wednesday, September 24. Colonel Fischer is in charge of Dental Research at the U.S. Airforce School of Aviation Medicine, Randolph Field, Texas.

The promotion of Majors V. R. Farrell

and S. K. Oldfield to the rank of Lt-Col. has been announced.

Lt-Col. Farrell, 54, was born and received his early education in Grimsby, Ontario. Graduating from the Royal College of Dental Surgeons, Toronto, in 1920, he practised in Grimsby until appointed Lieutenant in the Canadian Dental Corps in May 1940. After serving in the United Kingdom from March 1941 to July 1945, Lt-Col. Farrell on his return to Canada was stationed at several clinics in Ontario before being posted to the Directorate in December 1951.

Lt-Col. Oldfield, E.D., 46, was born in Halifax, N.S., where he attended school. He was graduated from Dalhousie University in 1929 and established a practice in Halifax. He joined the Canadian Dental Corps in 1940 and served in the United Kingdom, Africa and Italy, from September 1941 to September 1944. On returning to Canada Lt-Col. Oldfield was first posted to a clinic at Halifax. During this period he served as a part-time demonstrator at Dalhousie University. Following postings to Rivers, Manitoba, and Vancouver, British Columbia, he attended a six-month post-graduate course in Restorative Dentistry at the School of Dentistry, University of Washington in Seattle. In August, 1950, Lt-Col. Oldfield was appointed to the staff of the R.C.D.C. School and for some time has been serving as Chief Instructor.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

How Much Money Is Being Spent on Dental Research in Canada Today?

1. The Associate Committee on Dental Research of the National Research Council has, since its inception in 1945, grown steadily in influence and is now supporting a comprehensive program of research. During the past four years the annual budget of the Committee has included an amount of approximately \$30,000 for "grants-in-aid." \$30,000.00
2. The University of Toronto, through its Advisory Committee on Scientific Research, has funds available for research purposes. Applications from members of the staff of the Faculty of Dentistry of the University of Toronto may be made to this Committee and are placed in competition with applications from all other divisions of the University. During the past few years the Faculty of Dentistry has applied for and received an average of approximately \$3,000 annually. 3,000.00
3. The Federal Government has appropriated funds for research in the Public Health Field. For the last few years the Faculty of Dentistry of the University of Toronto has obtained annual grants totalling about \$15,000 from this source. 15,000.00
4. Funds have been received for dental research this year from miscellaneous sources. Those that have come to the attention of the Research Committee of the C.D.A. are as follows:

a) Sugar Research Foundation . \$7,500.00

b) O'Keefe Foundation - 6,000.00

c) W. E. Mason Foundation . 5,000.00 18,500.00
5. Additional funds are available for dental research in

special fields, e.g. Ontario Cancer Foundation .

6. Total funds for this year exceed \$66,500. \$66,500.00
7. The above figures seem to indicate that it is not too difficult to arrange finances for well prepared projects in the field of dental research. The great problem and remaining serious obstruction is lack of funds for the training of research men and the funds for well-trained staff to direct research projects. W. G. McL.

1952 Transactions:—The transactions of the 1952 C.D.A. Annual Meeting have now been distributed to the membership in English. (The edition in French will follow in the near future.)

Luncheon in London for Canadian Graduates:—On August 18 a luncheon was held for Canadian Graduates practising in London, England, and vicinity under the auspices of the C.D.A. The arrangements were made by V. H. Jekyll of London. Those in attendance were: R. H. Aljoe, A. A. Garfat, F. D. Derrick, S. Cripps, C. L. Endicott, R. G. Simpson, Harvey Schwalm, C. de Vere Green, and V. H. Jekyll. Brigadier E. M. Wansbrough, Dean E. Charron and the C.D.A. Secretary being in London at the time also attended. H. Parker Buchanan, Secretary of the British Dental Association, attended as a guest of the group. After the toast to the Queen, Dr. Harvey Schwalm proposed a toast to the guests which was replied to by Mr. H. Parker Buchanan. Dr. C. L. Endicott proposed a toast to the Canadian Dental Association to which Dean E. Charron made reply. A short address was then given by the C.D.A. Secretary on the condition of dentistry in Canada. Four other Canadian graduates practising in London, namely K. C. Campbell, Joseph Finmark, G. R. Ferguson, and Frank Allott sent regrets owing to their being away on holiday.

Library Service:—In the near future a catalogue of the C.D.A. Library will be distributed to the membership. Additions to the library from time to time will be published under the heading "Additions to the Library" as found below.

The Library aims to be of service to the membership. Books are loaned to members on the basis of retention of the book by the member for a two-week period from the date when the member

has received the book. If the book is not in demand by another member extension may be obtained on request for an additional two-week period. Outgoing postage is paid by the Association. Return postage is paid by the member borrowing the book. Address all inquiries as follows:

The Librarian,
Canadian Dental Association,
234 St. George Street,
Toronto 5, Canada.

Additions to the Library

- BACHAM, G. W.: Health resources in the United States. Personnel, facilities, and services. 1952. 344 p.
BRAUER, J. C., and others: Dentistry for children. 3rd ed. 1952. 454 p.illus.
CROMWELL, G. E.: The health of the school child. 1946. 256 p. illus.
DUSHMAN, S.: Fundamentals of Atomic physics. 1951. 294 p.
GILLETT, L. H.: Nutrition in public health. 1947. 303 p.
GORDON, R.: Diet manual. 1945. 92 p.
GROUT, R. E.: Health teaching in

- schools. For teachers in elementary and secondary schools. 1948. 320 p.
HOSKINS, M. M., and BEVELANDER, G.: Essentials of Histology. 1952. 240 p. illus.
KEEFER, C. S.: The uses of penicillin and streptomycin. 1949. 72 p.
LESLEY, P.: Public relations in action. 1947. 280 p.
McBRIDGE, W. C.: Juvenile dentistry. 5th ed. 1952. 370 p. illus.
SAMSON, E.: The immortal tooth. 1939. 271 p.
SAMSON, E.: The future of private practice. 1948. 69 p.
SAMSON, E.: Facing the facts. 1942. 100 p.
SAMSON, E.: Aren't you ashamed? 72 p.
SAMSON, E.: The unitary system. 100 p. illus.
SMITH, K. M.: An introduction to the study of viruses. 1950. 106 p.

(The books listed under the author E. Samson have been donated to the library by Mr. E. Samson of Bournemouth, England.)

NEWS FROM THE PROVINCES

ONTARIO

Dr. Martha Law was guest of honour at a formal reception given by the University of Toronto Women's Club. She is the second member of the Club to have been elected president of the Canadian Federation of University Women. Dr. Law attended a meeting of the International Federation of University Women in Italy this summer. She reported on the meeting to members of the Toronto Club.

Faculty of Dentistry, University of Toronto, staff changes are announced as follows:—Dr. R. S. Woollatt promoted to Professor of Dentistry; Drs. E. P. Downton and K. J. Paynter to associate professors; Dr. Frank Martin to Assistant Professor in Prosthodontics and Dr. M. N. Rockman to Assistant Professor in the x-ray department. Drs. E. E. Johns and A. C. Robinson have been promoted to associate professors. Dr. W. J. Ross, Professor of Dentistry becomes director of the Clinic and Dr. J. B. Macdonald, Assistant Professor (Bacteriology) becomes chairman of the Division of Dental Research.

New Staff appointments as Demonstrators are: — Dr. D. L. Anderson — Periodontics; Dr. K. F. Box — Periodontics; Dr. M. Carefoot — Dental Anatomy; Dr. D. O. McIntyre — Dental Anatomy;

Dr. J. E. Speck — Periodontics and Dr. W. G. Woods — Prosthodontics. Dr. Harrison J. Mullett has been appointed supervisor of clinic admissions for the session 1952-53.

The Twelfth Annual Convention of the Northern Ontario Dental Association was held in Kirkland Lake on September 5. Attendance exceeded the fondest expectations of the Executive Committee, as there was a good increase over last year. The increase was due in part to a number of dentists who came from North Western Quebec. Kirkland Lake is situated very close to them but from their comments most of them who came this year will be regular members from now on.

The total attendance was 65 with 55 of them dentists. Delegates were present from Timmins, North Bay, Sudbury, Haileybury, New Liskeard, Englehart, Kapuskasing, Smooth Rock Falls, Toronto, Kitchener, Noranda, Rouyn and Temiskaming.

Guests of honour were Dr. R. G. Ellis, Dean Faculty of Dentistry, Toronto; Dr. Roy Winn, Chairman of the Board, Royal College of Dental Surgeons of Ontario; Dr. R. G. Woods, President, Ontario Dental Association and Dr. Clay of the Department of Veterans Affairs.

Dr. M. J. Sheldon and Dr. W. J. Ross

both of Toronto were guests on the scientific program and their presentations were well received.

At the business meeting presided over by Dr. Archie Boyd the officers for the new year were elected as follows:

President, Dr. S. P. Smith of New Liskeard; Vice-President, Dr. W. R. Foster, North Bay; Secretary-Treas., Dr. J. Crawford, Haileybury, Dr. M. Back was appointed to the Executive as Secretary of Dental Public Health promotions. It will be Dr. Back's duty to promote dental health education by making available material for lectures to Service Clubs, Home and School Clubs, etc.

On the entertainment side for which the "North" is justly famous, the thanks of everyone go to Dr. and Mrs. Archie Boyd. Mrs. Boyd was in charge of the ladies' program and arranged a luncheon for them at the Kirkland Lake Golf Club. Forty-three ladies attended a most enjoyable party. Dr. Boyd was the chief arranger of the president's dinner party. Last spring he conducted a local talent show which was most successful. He brought in some of his performers on that "Show Boat Cabaret" to entertain the dentists and their ladies and it was a great hit.

So the meeting came to an end for another year. Preparations for the Convention were directed by President A. W. Boyd, Vice-Pres. S. P. Smith and Sec'y-Treas. G. W. Burgman.

The meeting next year will be at New Liskeard on the first Saturday following Labour Day.

The Fourth Series of **Telephone Extension Lectures** arranged by the College of Dentistry, University of Illinois will be presented at the Faculty of Dentistry as follows:

Monday, November 10—Exodontia.

Monday, December 8—Dental Materials and Therapeutic Aids in every day Dentistry.

Monday, January 12—Removable Partial Denture Prosthesis.

Monday, February 9 — Treatment of Periodontal Diseases.

Monday, March 9 — Developmental Anomalies in Dental Practice.

Anyone interested in attending these lectures should contact Dr. J. E. Ackerman, 168 Dundas St. W., Toronto 2, Ontario.

The First Dental Seminar in Post-Graduate Education under the sponsorship of the Ontario Dental Association was held at Brampton on September 22 and 23. Dr. Gordon Johnston and Dr. E. R. Bilkey conducted the seminar instruction and Dr. J. H. Johnson was guest dinner speaker. A second seminar

was held at Sudbury on October 31 and November 1. Dr. W. G. McIntosh and Dr. A. W. S. Wood conducted the seminar.

The Dental Service at the Hospital for Sick Children in Toronto has been further extended. A gift of \$15,000.00 from the Junior Red Cross has made it possible to add a second operating room and a new general anaesthesia unit.

The Ladies' Auxiliary of the Hospital have financed the necessary alterations and the purchase of complete dental equipment for an operating room in connection with the Country branch of the hospital at Thistle town, Ontario. This branch of the hospital cares for those children requiring a long recuperative period and patients here have never had satisfactory dental care.

This program of extension has been possible through the co-operation of Dr. A. L. Chute, physician-in-chief of the hospital and the members of his staff. This co-operation reflects the recognition of the contribution which a well-organized dental service can make toward a more complete health service to the child patient.

The Toronto Study Club of Dental Technicians held its annual Golf and Horseshoe Pitching Tournament on September 3, at the Elms Golf and Country Club, Weston, Ontario.

The day was a great success, with a large number of members turning out for the occasion.

A most enjoyable dinner was served in the Clubhouse later in the evening, after which the Charles Daley Trophy was presented to Geoff Tebbutt, winner of the golf tournament.

The horseshoe pitching tournament was won by Mr. H. Magson and the lucky draw for a Ronson table lighter, donated by Handy & Harman, was won by Charlie Blandford.

Guests at the dinner included representatives from all the dental dealers in Toronto.

The Ladies' Auxiliary to the Toronto Academy of Dentistry held their annual membership tea on October 16 at Prince Arthur House. President Mrs. J. E. Verth received the members and guests along with Mrs. W. L. McMachen and Mrs. Gordon Chalmers.

Presiding at the tea table were past presidents, Mrs. W. W. Philp and Mrs. L. R. Davidson. Assisting them were Mrs. R. G. Ellis, Mrs. P. H. Shepherd, Mrs. K. M. McPherson, Mrs. W. C. McLean, Mrs. H. E. Leyland, Mrs. G. R. Stinson, Mrs. J. A. Bigelow, Mrs. W. G.

McIntosh, Mrs. J. C. Lindsay, Mrs. J. D. Evans and Mrs. E. Downton.

(Mrs.) Nell Downton
Publicity Convener

Congratulations to Dr. Harry S. Thomson who was recently elected President-elect of the **American College of Dentists**. Dr. Thomson is perhaps the best known member of the dental profession across Canada and his many friends will applaud his elevation to this well merited honour.

The annual dinner of the **Academy of Dentistry**, Toronto, was held at the Royal York Hotel on October 20. President Dr. J. Gordon Chalmers welcomed some 300 dentists to the inaugural meeting of the 1952-1953 sessions. Among the guests of the evening were Dr. Sidney Smith, President, University of Toronto; Dr. Stuart Gordon, President of the Academy of Medicine, and Mr. Allan Lamport, Mayor, City of Toronto.

The guest speaker of the evening was Dr. Marcus Long, Associate Professor of Philosophy, University of Toronto. Dr. Long's subject was "Things that Matter."

The Academy membership this year is over 400. Program for the stated meetings in January, February and March includes the following speakers:

January 14, Dr. Gordon Revelstod, Subject,—"The Dentist's Responsibility to the Child Patient."

February 18, Dr. Waldemar A. Link, Subject,—"The Amalgam Problem in Operative Dentistry."

March 11, Dr. W. G. McIntosh, Subject,—"Periodontal Service in General Practice."

President Chalmers announced that the above meetings will be held in the New Osler Hall on Huron St., just north of Bloor St., which is a change from last year when the meetings were held in the Museum Theatre.

QUEBEC

A Fall Golf Meet was held by **The Montreal Dental Club** at the Rosemere Golf Club on September 12 with 35 members participating. Having been warned by Arnold Mitchell at the Spring Tournament that he would have to be "hot" to keep his low gross trophy, Roy Dohn took it to heart and calmly shot a seventy-seven which certainly did the trick. Arnold was the runner-up with an eighty-two and but for a "quadruple" bogey on one hole, might have done the trick. John Chamard claimed the low net trophy with a snappy sixty-seven with George Dundass running second.

The course was in very good shape and some fair scores were handed in.

After the golf, a successful dinner was attended by some forty-five members of the Club with the president, Les Martin, in the chair. John MacDonald, who ably conducted the business side of the outing, presented the prizes to the winners and to quite a number of also-rans. John was congratulated for his fine handling of the outing and the meeting concluded with a reminder to all that the Winter Meet would probably be held in February.

R. F. H.

NEW BRUNSWICK

The Fifty-Seventh Annual Meeting of the N.B. Dental Society was held at the Admiral Beatty Hotel in Saint John on September 27-28.

The President, Dr. R. S. Langstroth presided and gave a very comprehensive president's address. An innovation this year was the mimeographing in advance of most of the committee's annual reports. These reports were not read at the meeting and the time saved was used in discussion.

Dr. A. L. Coughlan, the C.D.A. representative for N.B. and the President-elect of the C.D.A., gave an excellent report. He stated, in addition, that it was expected the 1954 C.D.A. Convention would be held at the Algonquin Hotel in early September.

Dr. H. H. Peters, Vice-President of the D.C.C., gave an interesting report on the meeting of the D.C.C. in Vancouver. No definite date was set for the turnover of that body to the new C.D.A. National Examining Board which is just being formed.

The Registrar reported there were five new registrations in the province, one death, one removal and one return of members.

Dr. B. R. Ross, chairman of the Maritime Convention Committee this year, gave a very favourable financial report. The members were enthusiastic with praise for the management of this year's convention.

The following resolution was passed on the fluoridation of water, "That in the light of facts which are available and at our disposal we would recommend the fluoridation of communal municipal water supplies to aid in the reduction of tooth decay."

The President read a very comprehensive and detailed review of Dental Public Health in this province. It was decided to have this mimeographed and sent to all members in the province.

The following officers were elected for the ensuing year:

President—Dr. L. O. Leger, Saint John;

Vice-Pres.—Dr. H. H. Peters, Saint John; Sec. Reg.—Dr. S. K. Wetmore, Saint John; Council—Dr. R. H. Bingham, Moncton; Dr. D. Boudreau, Edmundston; Dr. H. B. Fleming, Moncton; Dr. A. T. Hinch, Fredericton; Dr. E. J. Leger, Bathurst; Dr. B. O. O'Brien, Fredericton; Dr. G. L. Ramsay, Saint John; Dr. R. F. Sansom, Saint John; Dr. W. A. Sinclair, St. Stephen; Dr. A. Steuermann, Saint John; Dr. J. B. Sutherland, Woodstock; Dr. L. J. White, Perth.

BRITISH COLUMBIA

The beginning of the fall season found the **Vancouver and District Dental Society** well prepared for its various activities. Details of opening meetings of many study clubs were made available, and a large registration is expected.

At the first meeting of the Society in the fall term, the Visual Education Committee arranged for the presentation of an excellent film, entitled "The Construction of a Maxillary Anterior Fixed Bridge", prepared by the Bureau of Medicine and Surgery of the U.S. Navy.

The remainder of the meeting was given over to the usual popular visit of the President and Secretary of the C.D.A., Drs. Gustave Ratté and Don Gullett, respectively. Both speakers kept the audience well entertained with their informative and interesting addresses.

The fall Golf Tournament of the Society was slated for October 16, under the chairmanship of Dr. Dick Butler.

For the first time, collections for the Community Chest were handled by the dentists themselves, in Vancouver.

The Division of Preventive Dentistry of the Department of Health and Welfare of the Province of B.C. announces, in a recent report, the much appreciated co-operation of the Dental Health Division of the New Zealand Department of Health, in making available to our Division an effective and attractive dental health poster used in New Zealand. Reprints of the poster have been received from the Queen's Printers, and are now available for use in B.C. The New Zealand Department of Health has also offered to reprint, at very low cost, two of their dental health education film strips, for use with film strip projectors in this Province. In co-operation with the Visual Aid Division of the Department of Education, extra copies are being provided for distribution by the School Film Library of that Division.

The Division announces, also, viewing of a film on fluoridation and recommends that one copy be purchased.

A newly designed transportable dental x-ray unit has been received on approval. Trials are being conducted to determine its suitability for use by the Division. A bracket for its attachment to the transportable dental chair has been designed, and if further trials prove to be satisfactory, authority will be requested to purchase the equipment for a year's field study in a Health unit.

After several years of excellent work as editor of the **News Bulletin of the B.C.D.A.**, Dr. Harry Johns, of Victoria has handed over his duties to Dr. Munro, of Vancouver. It will be no easy task to keep up the standard maintained by Dr. Johns, but the work is in good hands, and we look forward to the continued activity of this popular and useful publication.

ALBERTA

Faculty of Dentistry News, University of Alberta:—The 1952-53 session began with registration for all years on September 2. Lectures, laboratories and clinics commenced on September 3.

The total registration this year is 124. This is composed of 53 students from Alberta; 15 from B.C.; 4 from Manitoba; 41 from Saskatchewan; 1 from Nigeria; 1 from Hong Kong; 4 special students (displaced persons).

Two new members have been added to the academic staff in the persons of Dr. R. C. McClelland (Prosthetic Department) and Dr. H. A. Grimsrud (Operative Department). Dr. H. L. Samuels has returned to the staff after spending the past year at Tufts College Dental School taking a postgraduate course in Periodontia. This course was undertaken through a Teaching Fellowship from the Kellogg Foundation.

The Faculty held its biennial Fall Refresher Course on September 15 and 16, under the very capable chairmanship of Dr. R. V. Blackmore. Registrations numbered 106. The course opened with an address of welcome from Dr. Andrew Stewart, President of the University of Alberta.

The Faculty was very fortunate in securing Dr. H. A. Zander, Professor of Periodontia, University of Minnesota, as guest speaker. Dr. Zander gave two papers supplemented with slides and motion pictures. His topics were "The Physiology of the Dental Pulp," and "Rationale for Periodontal Treatment." He was an enthusiastic speaker and his presentations were extremely well received. The contents revealed a knowl-

edge of the subject gained by study and research.

The following subjects were presented by members of the Faculty: "Dentistry for Children," by Dr. Wm. Orobko; "Problems in Full Denture Practice," by Dr. S. D. Fraser; "Insertion of a Gold Foil Restoration," by Dr. H. R. MacLean; "The Gold Inlay," by Dr. G. A. Brass; "Anatomical Basis for Local Anaesthesia," by Dr. K. A. McMurchy; "Principles of Oral Surgery," by Dean W. Scott Hamilton. C. G. Duke.

At the first fall meeting of the **Lethbridge & District Dental Society**, the following were appointed the 1952 executive:

Dr. V. E. Christou—President.
Dr. T. O. Wittbeck—Vice-President.
Dr. F. T. Wood—Secretary-Treasurer.

The **Calgary Dental Society** held its first regular meeting of the 1952-53 season Sept. 29. Dr. R. Rasmussen was elected to the office of Treasurer to complete the executive of Dr. R. M. Duncan, Secretary, Dr. A. A. Downey, Vice-President, and Dr. L. K. Brooks, President. Dr. James Gibson was appointed chairman of the curling committee. It is expected the Society will curl monthly from October through to March.

The Society honoured Dr. H. L. Free-land upon his being made a Fellow of the American College of Dentists. Dr. Freeland is the fourth Albertan and the first Calgarian to receive this honour. The Society is most proud of its member.

Dr. John W. Clay was the guest speaker of the evening. Dr. Clay in his most interesting manner spoke of his trip to the International Dental Conference in London, England. Dr. Clay made mention of some outstanding clinicians.

Then he discussed his tour of England and Europe illustrating his talk with kodachrome moving pictures. Dr. G. C. Swann thanked Dr. Clay on behalf of the Society for his most entertaining and educational lecture.

The Society held its final golf tournament and banquet at the Calgary Golf and Country Club. Dr. Alexander of Nanton retained the Dave Bowen Trophy, emblematic of the lowest score. Almost every golfer received a prize. After cocktails the Society sat down to a banquet. Dr. K. C. Gray was thanked for the wonderful tournaments he organized this year. L. K. B.

SASKATCHEWAN

Saskatoon Society:—The visit of Dr. Gus Ratté and Dr. Don Gullett, the President and Secretary respectively of the Canadian Dental Association, was a highlight for our society.

This contribution to our profession is immeasurable. They always have a message for us, one that is educational, a challenge and inspirational.

The annual visit of these two officers has done much to mould our profession to one of greater importance. We as members of the dental profession wish to express our gratitude to Dr. Ratté and Dr. Gullett for the excellent contributions they are making. L. D. H.

Dental Clinic:—Under the chairmanship of Dr. Watchler, Saskatchewan dentists from Regina, Moosomin, Canora, Langenburg, Melville and Kelvington met in Yorkton September 15.

Dr. W. Simons, head of the oral diagnosis department of the Univ. of Minnesota, addressed the meeting. This was followed by a dinner in the Yorkton Hotel.—Yorkton Enterprise.

Dental Bursaries Awarded: — Three Saskatchewan girls have been awarded dental hygiene bursaries at the Univ. of Toronto.

The bursaries were awarded under national health grants and the courses are sponsored by the Saskatchewan division of dental health.—Regina Leader Post.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

Luncheon in London:—It is the privilege of everyone at some time or another to enrich the consequence of his imperishable treasury with moments of true human fellowship. It is such precious experiences, rare and unexpected as they so often are, that illuminates man's soul.

In London, at luncheon on Tuesday the eighteenth of August in the wine vaults of "l'Ecu de France" on Jermyn

Street, such a priceless gem was added to the collection of thirteen dentists, twelve of them members of the Canadian Dental Association.

The occasion was unique in many ways, principally though, because the common bonds of professional association, under the auspices of which the arrangements were made, remained throughout subservient to a prevailing spirit of true friendliness. The atmosphere was one perhaps best recognized



MEMBERS OF CANADIAN DENTAL ASSOCIATION AT LUNCHEON IN LONDON.
Left to right:—Derrick, Parker-Buchanan, Schwalm, Gullett, Simpson, Charron, Jekyll, Aljoe, Wansbrough, Green, Cripps, Garfat and Endicott.

by those who have lived on an outpost and felt the warmth that comes in forging and cherishing a link with a world apart. One, in which they themselves are more genuinely a part.

It was, among other things, a sort of mopping up party after the International Congress and, as such, it served appropriately, the swan song. Highlights of the Congress were revived and farewells said to the departing.

Don Gullett, the host and guest speaker, dispensed simultaneously hospitality and inspiration both in equally large measures, producing a delightful combination reminiscent of the fare of our modest, simple, while stalwart pioneer forebears. In advancing the wishes of those in whose hearts the interests of progress in Canadian dentistry is uppermost, Don's approach made history for everyone, and those privileged to attend this luncheon were abundantly grateful to receive such a handsome reward.

Cyril de Vere Green's most appropriate grace was "For good food and good fellowship, thank God."

Elgin Wansbrough, our Brigadier D.G.D.S., who commands R.C.D.C., proposed "The Queen" with a brief and suitable reference.

Tiny Schwalm, who has been directing the affairs of the American Dental Society of Europe as chairman, and Endy

Endicott, who was his opposite number in the American Dental Society of London, spoke simply and feelingly on behalf of the Canadians in dentistry, here.

Sam Cripps said a farewell piece with mixed and wrought-up feelings.

Parker-Buchanan, Secretary of the British Dental Association, the only real guest, reaffirmed the superfluous, his affection, admiration and reliance for and on his Canadian friends.

Ernest Charron, Dean of the Montreal Dental School, as a delegate from the Canadian Dental Association and representing particularly our French-Canadian brotherhood, delighted us all by a contribution, in his inimitable way, from that profound store that is his, of serious and honest material accumulated through a lifetime of service to the welfare of dentistry, generally.

It is disappointing that special reference cannot also be made to each of the other members at the luncheon, as he well deserves, but this is now impossible. Suffice it therefore to conclude by saying they were Doug Derrick, Bob Aljoe, Geoff Simpson, Arthur Garfat and myself.

Au revoir now, from us in Britain. Thank you and bless the C.D.A. for what you're doing for us.

Victor Henry Jekyll,
 D.D.S., L.D.S.R.C.S.

School Dental Services:—John W. Gilbert, L.D.S.R.C.S., of London, England, had this to say, in part, about school dental services in his report given at the International Dental Congress in July.

"On a basis of 3,000 children for each School Dental Officer, over 2,000 such Officers would be required to treat the children alone. In May 1951 the Minister of Health stated that there was the equivalent of 717 full-time Officers treating school children at the end of the year 1950. Due to the very unsatisfactory remuneration of School Dental Officers and to the attractions of practice under the General Dental Service, their number steadily decreases and the reports from county education committees show the serious plight of the School Dental Service throughout the country. Typical of the prevailing deficiencies is the County of Dorset where, out of a school population of 34,444, only 11,706 were even inspected during the past year. The Senior Dental Officer of the county informed the Dorset Education Committee

that the service was in danger of complete collapse within a few months. The problem that faces the Senior Dental Officer everywhere is whether to reduce conservative work and concentrate on extractions for the relief of pain, or to reduce the number of children eligible for full treatment.

Under the newly awarded scales (in July 1951) the commencing salary of a School Dental Officer is £800 per annum, rising by annual increments of £50 to £1,250. A Chief Dental Officer can rise from £1,250 to £1,550 or more if the Local Authority so decide and if the population of the area concerned is approaching 600,000.

The increase in the salaries of these Dental Officers recently agreed by the Dental Whitley Council (a joint committee of the management and staff sides to determine remuneration, etc., whose agreed findings are binding on both sides) are so insignificant that they can make no possible contribution to the problem of the financial counter-attractions of general practice.

GENERAL NEWS

National Health Insurance:—Dwight D. Eisenhower blasted the Truman Administration's plan for compulsory health insurance. The Republican nominee for President said that "a federally operated and controlled system of medical care which is what the Administration's compulsory health insurance scheme is," would "destroy things which are essential to high-grade medical service." He said it would result in "assembly-line treatment" and that the patient "instead of getting more and better medical care for less" would get "less and poorer medical care for more." He warned against "any foolish experiment." Ike's statement, which aligned him with the American Medical Association in its battle with the Truman Administration, was issued at his headquarters in New York.—Washington Post, Sept. 15, 1952 per Public Health Economics.

"Airbrasive" Machine:—Dr. James T. Ginn, Dean of the Univ. of Tennessee College of Dentists, presented the following report on the "Airbrasive" machine at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee, December 8, 1951, as reported in the September 1952 issue of the Journal of the American College of Dentists.

"Thus far, we have not offered courses in the use of the 'Airbrasive' machine.

From the best available information it appears that this machine has not proven as practical as had been anticipated, and for that reason many dentists have lost interest in the procedure. The University of Tennessee College of Dentistry has not received one application for the course during the past six months. It has been our opinion all along that it was unwise to offer a course in the use of the 'Airbrasive' machine until more is known about it; its effects upon the oral tissues; its effects upon the operator, and its practical application in dentistry. It was our opinion that it would not improve dental service, either in quality or quantity, but might possibly retard the progress of dentistry if universally adopted."

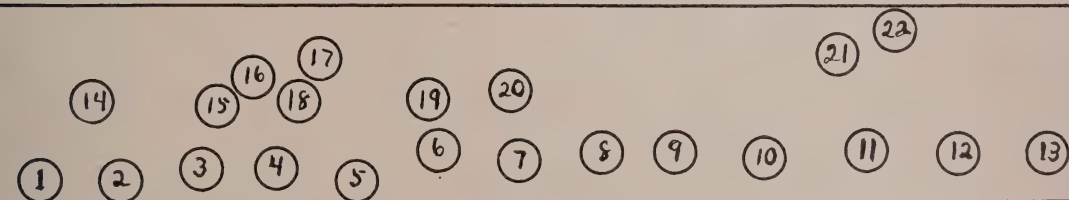
Sodium Fluoride Application on Dental Caries in Adults:—Benton Kutler and Ralph L. Ireland, College of Medicine and Dentistry, Univ. of Nebraska, as the result of a well-controlled study, have reported in the Journal of Dental Research that four applications of 2 per cent sodium fluoride within a few weeks are of little or no value in the prevention of dental caries in adults.

Germany Abolishes Sublevel Dentistry:—The Editor of the Journal of the American Dental Association has this to say, in part, about sublevel dentistry:

"Concerned over the constantly lowering standards of dental service, the Fed-



MEETING OF THE AMERICAN DENTAL SOCIETY OF EUROPE held July 15 to 18 at the home of the Royal College of Surgeons of England. This picture is taken in front of that building.



- | | |
|------------------------------------|-------------------------|
| 1. Dr. C. N. Skinner | 12. Dr. Milton Walls |
| 2. Dr. Dressel | 13. Dr. Gordon Pollock |
| 3. Dr. Ellsperman | 14. Dr. Aris |
| 4. Dr. Malcolm Carr | 15. Dr. Philip Dear |
| 5. Dr. S. McCallin | 16. Dr. Fernand Bouchon |
| 6. Dr. F. D. Derrick (Hon. Sec.) | 17. Dr. Hare |
| 7. Dr. A. Heide (Vice-Pres.) | 18. Dr. Hargreaves |
| 8. Dr. Harvey Schwalm (Pres.) | 19. Dr. Amvedo |
| 9. Dr. Don W. Gullett | 20. Dr. Niellville |
| 10. Dr. James Molony (Hon. Treas.) | 21. Dr. Donald Derrick |
| 11. Dr. Miles Markley | 22. Dr. Gunnar Aasgaard |

eral Republic of Germany last March enacted legislation which revamped its regulations for dental education and dental practice. For more than three quarters of a century, Germany had experienced and experimented with a dental health program built on a two-level system of education and two-level system of service. The Zahnarzt, or university educated practitioner, had rendered the elite type of service, while the Dentisten, or unqualified practitioners, only technically trained, cared for the dental needs of the great mass of the people.

"Henceforth, German dentists entering the profession, must have completed successfully an approved formal course in dental education. The training and recognition of Dentisten have come to an end although these unqualified dentists who have already been in practice may acquire approbation and continue in practice provided that they meet certain conditions prescribed by the new law.

"A two-level system of dental practice is understandable only when a population is too poor to support a fully qualified profession or when the legal requirements for the practice of dentistry are inordinately high.

"The experience of our European neighbours should serve as a warning here. But despite the lessons which Britain, Germany, and some other countries have learned the hard way, some persons would have us repeat these errors. Some would establish large multi-chaired clinics with a superdentist in charge directing the services of lesser trained men. Some would partially train young women to perform certain dental operative services for children, and some would license dental laboratory technicians to perform certain types of intra-oral service. Double standards of dental service did not work in Britain, they did not work in Germany, and they will not work here. American dentists will watch with interest the development of the profession in Germany under the new regulations."

Free Dental Service:—Approximately 36 million Americans are entitled to have part or all of their dental work done at the expense of the federal government; they include almost 20 million living veterans of all wars, 3½ million military personnel, 10 million of their dependents (entitled to care only if dentists and facilities are "available"), plus Indians, prison inmates, some public employees, etc.—Dental Survey.

Smokers and Asthma:—Drs. Gustavus A. Peters, Louis E. Prickman, Giles A. Koelsche and Haddon M. Carryer of the Division of Medicine of the Mayo Clinic

have this to say in a recent report on smoking in the case of a patient with asthma:

"No patient who has asthma should smoke. Smoke of any type is irritating, not soothing, to mucous membranes. Smoking induces cough, bronchitis and bronchospasm, which are nature's warning to avoid or to expel the irritating effects of smoke. All patients with asthma have some degree of bronchitis.

"Smoking is one of the most common sources of bronchial irritation, and invariably increases cough and asthma when continued any length of time.

"Some patients who have asthma are advised to continue smoking because cutaneous tests with tobacco antigen give negative results. The mere fact that results of tests for allergy to tobacco products are negative is no criterion whatever that the patient with asthma can tolerate smoking.

"If a patient has asthma, it is not enough to reduce smoking; it must be completely stopped. Just as a patient will never receive very convincing advice about reduction of weight from an obese physician, so also he or she may not be told to stop smoking by the physician who himself is a heavy smoker. Nevertheless, the best possible regimen for the relief of chronic asthma may fail if the patient is allowed to continue smoking."

Average Net Income of all Dentists in 1951 in U.S.A., according to the U.S.A. Department of Commerce, increased about 10% to \$7,743 from the \$7,037 average net of 1949 (when a comprehensive survey was made). Those engaged full-time, or a major part of the time, in private practice averaged a net of \$7,856 in 1951 compared with \$7,168 in 1949. The 1951 estimates are based on information obtained from a sampling of 624 members of the profession which the Department's experts then attempted to weigh for an accurate overall average.

A similar sampling of physicians shows that they increased their average net incomes about 13% over the two years, the average for all physicians going from \$11,058 in 1949 to \$12,518 in 1951. Lawyers came up about 9%, from an average net for all lawyers of \$8,557 in 1949 to \$9,375 in 1951.—Dental Survey.

The number of communities in the U.S.A. now receiving **Fluoridated Water** stands at more than 300. The total includes the names of communities in Maryland and Georgia counties, previously reported as having fluoridation projects in operation, plus additional projects reported in other areas. In Maryland, the water supplies of some 60 commu-

nities are fluoridated by two projects through action of the overall authority.

An additional 270 communities in the continental United States have approved this public health measure for future adoption. These include such large cities as Fort Worth, Tex., whose population of 278,778 makes it the fourth largest in the state, and Reading, Pa., with a population of 109,320.

American Dental Association Registration at St. Louis:—The following is the breakdown of the final registration at the A.D.A. Convention in St. Louis in September:

Dentists		
Members	4,327	
Foreign	48	4,375
Students		336
Assistants & Hygienists		551
Technicians		253
Exhibitors		699
Guests		2,135
Total	.....	8,349

A.D.A. Relief Fund Contributions Set Record at \$94,199.56:—Contributions to the Association's recent 1951-52 Relief Fund drive totalled \$94,199.56, the highest amount recorded since the Fund campaign was established. During this year's drive, 32 societies contributed more than their goals, which also established a record. The drive ended July 1.

Group Medical Practice in California:—Group practice has developed as an increasingly significant form of medical organization in the United States. With the stated objectives of co-ordinating the technical complexity of modern medicine and achieving economy and efficiency of patient care, the group movement has attracted the attention of a growing number of physicians.

Group practice in the state is relatively mature; thirteen of the 52 groups are 21 or more years old, and 32 units are 11 or more years old.

While almost all the groups care for patients enrolled in the various medical insurance plans operating in the state, there are ten which operate their own plan as an integral part of the group organization. These groups tend to be very much larger and more urban than those providing private fee services only.

In two-thirds of the California groups, the patient himself determines the physician to whom he is initially referred. In the remaining one-third, this decision is made by a nurse or clerical receptionist. None of the groups appear to use a physician for initial evaluation. In the

prepayment groups, 80 per cent accept the patient's initial self-referral.

The great majority of physicians in group practice in California receive partially or entirely a salary form of income. Over half have a straight salary, while another quarter receive a bonus or percentage of net profit in addition. The remaining minority are divided about evenly between percentage of net profit only and individual fees for service.

The most common criterion of remuneration of physicians reported was the owner or partner status of the physician (61 per cent of groups). About half consider training, accreditation, experience and professional status. More than one-third of the groups consider seniority in the organization. A relatively small number take into account the amount of service rendered or the number of patients brought into the group. The experience in the nation as a whole is similar, and thus the emphasis in group practice is more on professional criteria and less on volume of work performed. This is particularly noted in the larger groups and in those with their own prepayment plans.—California Medicine.

Cost of Medical Care:—In the past year in the U.S.A. the index of the prices of all items in the consumers' budget has risen almost twice as many points as the price of medical care. The Consumers' Price Index reached an all-time high of 185.6 while the index of the prices of medical care and drugs stood at 155.0. In terms of purchasing power of the consumer dollar, medical care was 16 per cent cheaper in 1951 than in 1935-1939, that is, 155.0 is 84 per cent of 185.6.

The index of medical care excluding drugs was 160.9 in 1951 and the index of prescriptions and drugs, 128.4. The index of dentists' fees was 160.0 and of hospital rates, 260.7.—J. of the American Med. Assoc. 149:1157 July 19, 1952, per Public Health Economics.

Reduction in Tooth Decay:—Dr. William A. Jordan, of Minneapolis, director of the Minnesota Department of Health division of dental health, reported in the Journal of the A.D.A. that the dental health program carried out in the village of Askov, Minn., has resulted in reductions in tooth decay ranging from 41.6 per cent in the 3-to-5 age group to 8.4 per cent in the 13-to-17 age group as compared with children in the nearby community of Hinckley, Minn., chosen as a "control."

The program, covering 350 children, includes intensive instruction in tooth-brushing and diet, complete dental exam-

inations, dental corrections and applications of sodium fluoride.

At the first **Annual Meeting of the American Academy of Implant Dentures** at St. Louis, the Constitution, By-Laws, and Articles of Incorporation of this Academy were adopted and accepted.

It was agreed that articles for publication shall qualify under the following points:

1. Articles shall be factual.
2. Articles shall not be sensational.
3. Articles shall represent the consensus of opinion.
4. Articles shall be written with adequate time and due deliberation.
5. Articles shall be coherent, accurate, and concise.

A.D.A. Council Issues New Book on Children's Dental Health:—A new booklet, "Your Child's Teeth", has been published by the American Dental Association's Council on Dental Health, to replace the booklet, "Dental Health for Young America." The new 24-page booklet is designed for easy reading by the public and includes explanations of oral hygiene, the application of sodium fluoride, correct toothbrushing and diet.

Single copies of the booklet may be obtained without charge from the Order Department, American Dental Association, 222 East Superior Street, Chicago.

Offer Training Courses for Laboratory Technicians:—Applications are now being accepted for a two-year course in dental laboratory technician's training, to be offered by the University of California Extension, Los Angeles. Applicants must have the equivalent of a high school diploma and must pass a test designed to measure the mechanical aptitudes which are needed for this craft.

Swiss Dental Society Recommends Fluoridation:—A recommendation that Swiss cities fluoridate their water supplies was passed at the 1952 meeting of the Swiss Odontological Society.

Early Loss of Child's Upper Front Teeth causes less serious results than the premature loss of any other primary or first teeth, Dr. James J. Kennedy, an assistant professor of children's dentistry at Northwestern University Dental School says in *The Journal of the American Dental Association*.

In the case of upper front teeth, he said, there is no need for space maintainers except for purposes of appearances or the possibility of a speech defect.

Premature loss of the second primary molars is the most disastrous of all early tooth losses, he said, and serious con-

sideration should be given to a space maintainer if the permanent teeth have not erupted.

There is absolutely no justification for denying the dental health benefits of **Fluoridation of Public Water Supplies** to the nation's children, states *The Journal of the American Dental Association*.

The Journal termed "archaic" and "illogical" a recent report by a seven-man congressional committee headed by Rep. James J. Delaney (D-N.Y.), which recommended that since "dental decay does not constitute a serious danger to health," communities should take a conservative attitude in adopting the procedure.

The Journal pointed out that fluoridation of public water supplies for nearly 1,000,000 residents of Washington, D.C., and nearby communities is now in operation with the approval of both houses of Congress. Fluoridation of water in the District of Columbia was started last June.

"The value of a scientific discovery . . . cannot be determined by a show of hands among members of a congressional committee," *The Journal* said.

"The scientific facts about fluoridation speak for themselves; they have been recognized and accepted by every important national organization concerned with public health and medical and dental practice."

The Journal charged that "the committee chose either to ignore or distort the favourable reports of all the leading health agencies in the country," including such organizations as the American Dental Association, the American Medical Association, the National Research Council, the American Public Health Association, and the U.S. Public Health Service.

In a separate statement, the American Dental Association's Council on Dental Therapeutics and Council on Dental Health asserted that dental decay was the most prevalent disease of mankind and added:

"In our opinion, the evidence to demonstrate the safety of the fluoridation procedure is so overwhelming that there is no justification for further denying to large numbers of children the benefits of better dental health which will result from this procedure."

Health Insurance System in Japan:—"A health insurance system was established in Japan in 1927. Under this system doctors lost their financial freedom. That is, no matter how superior a physician might be he was forced to accept a financially equal treatment to a young

junior college graduate who was only a novice in the profession. The result was that it deprived doctors of their incentive for improving their technical skill and their academic knowledge. Only 20 per cent of the total population of the nation, who are not taking advantage of the health insurance system, are the only social stratum which recognizes freedom of medical science of doctors. Doctors not only lost their financial and academic freedom but also are placed under considerable restriction regarding their individual freedom under the law which rigorously demands high civic spirit in their services. The patients, or health insurants, who receive the benefit of the system, too, are gradually losing their freedom of choice regarding doctors and hospitals. The reason is that the insurants are building their own clinics and hospitals, resorting to such sinister measures as to force patients to visit these institutions.

At present in Japan health insurants are forbidden to demand receiving anything from doctors aside from those which are prescribed by the law. And if doctors acceded to such demands by patients, they are subject to penalties even though their action is academically correct.

In the present health insurance service in Japan it is almost impossible for doctors and insurants to use foreign drugs according to their own ideas. In other words, the doctors do not have opportunities to apply to actual cases what they think is best on the basis of the knowledge. In short, they are forbidden to introduce world-wide progress in medical profession to the present health insurance service. If the medical care under the social security system in Japan is pushed in this manner, Japan will soon have the most vicious type of state medicine."—Jour. Am. Med. Assoc. per Public Health Economics.

IN MEMORIAM

Arthur J. Garesche, of Victoria, B.C., who was without question Canada's oldest and longest-practising dentist, died in St. Joseph's Hospital Sunday, September 14.

In June Dr. Garesche retired, one month before reaching his 92nd birthday.



Dr. Garesche

Dr. Garesche was born in Volcanville, California, and came to Victoria at the age of 6. He received his education at St. Louis College and in 1879 was apprenticed to Dr. Chancy of Seattle to learn dentistry, paying a fee of \$400, and in return receiving remuneration of \$4 per month. After a few months he felt himself fully qualified to carry on for himself and with the help of a friend opened an office where he worked on Sundays. When Dr. Chancy got to hear of the venture he demanded all the money taken in. This demand did not appeal to Dr. Garesche so he packed his grip with what few instruments he had and left for Cuba, where he opened an office in 1880.

Dr. Garesche found time from his practice to attend the University of Philadelphia, graduating with the D.D.S.

He continued his practice in Cardano, Cuba, until the Spanish American war ended, when, owing to the Americans being so disliked, he had to leave, moving to Victoria in 1895.

He is survived by his widow, two daughters and one sister.

William Hamilton Walton-Ball, Toronto, died at his home on September 24 in his 73rd year.

Dr. Ball graduated from the College of Dentistry of the Royal College of Dental Surgeons in 1902. After post-graduate study in Chicago he began his practice at College and Yonge Sts. Toronto where

IN MEMORIAM

he continued until his retirement in June of this year. He was a former president of the downtown Dental Association and a former member of the Academy of Dentistry Council.

Dr. Ball was born at Port Hope, Ontario, and was descended from families prominent in the development of that area. His great-grandfather, Capt. Nathan Walton, was founder of Port Hope and builder of St. Mark's Anglican Church there. The main street in Port Hope commemorates the family name. On his mother's side he was descended from Myndert Harris U.E.L., first settler of Port Hope township in 1793 who was given 1,200 acres of land by Governor Simcoe. A part of this land still remains in the family name.

Dr. Ball was a United Empire Loyalist, having been a president of the Governor Simcoe Branch. He also had been warden of St. Mary Magdalene's Anglican Church.

He is survived by one daughter, Mrs. Russell Gordon of New Glasgow, N.S., and two sons, Dr. Horace G. and Eric C., both of Toronto.

A. E. Auger of Stettler, Alberta, aged 77, died in Edmonton on September 20. He was graduated from the College of Dental Surgery in 1901.

He practised in Lacombe until 1908 when he moved to Stettler. He became a member of the school board in Lacombe and was elected to the same position when he moved to Stettler. He served 44 consecutive years on the two boards. He was also on the first dental board of the province. He was a member of the United Church, Stettler Rotary Club and also of the Masonic Order.

He was to have been made an honorary member of the Calgary Dental Society.

Dr. Auger is survived by his widow, two sons, three daughters, six grandchildren and two great-grandchildren.

Harry Brennan of Montreal, Quebec, aged 60, died September 24. He was graduated from the University of Montreal and practised at Campbellton, N.B., and Murray Bay, Quebec, as well as in Labrador and in North Shore settlements.

Dr. Brennan is survived by his widow, one son, a brother, two sisters and a grandson.

William A. Wyper of Madoc, Ontario, aged 74, died August 29. He had practised in Madoc for the past 37 years.

Frank Joseph Masiello of Rochester, New York, died on October 4. Dr. Masiello was graduated from the Faculty of Dentistry, University of Toronto in 1929. He is survived by his widow, two daughters and one son.

Neil Clark of Detroit died on July 23. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1923. He began practise in Detroit and continued in that city.

He was a member of the United Church.

Dr. Clark is survived by his widow, one son and one daughter.

Georges Laroche, of Quebec, P. Q., aged 50, was burned to death August 23 in a fire which damaged his Upper Town home.

DIRECTORY

Canadian Dental Association Headquarters—234 St. George Street, Toronto, Ontario.

Matters relating to the publication of manuscripts or news items for the English Section of the Journal should be addressed to the Editor-in-Chief, Dr. M. H. Garvin, 314 Somerset Building, Winnipeg, Manitoba.

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Matters relating to the business of the Journal should be addressed to the Business Manager, Dr. Don W. Gullett, 234 St. George Street, Toronto, Ontario.

Subscription Price of Journal in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

All additions and changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

NOVEMBRE, 1952

No 11

L'approche psychosomatique en art dentaire*

par Bernard B. Raginsky, M.D., C.M., F.I.C.A., F.A.C.C., F.I.P.S., Montréal

Tous les professionnels, et en particulier, ceux des sciences médicales, font plus ou moins usage de l'approche psychosomatique. C'est-à-dire qu'ils essaient de comprendre les facteurs émotionnels engagés dans le processus de la maladie. Ceci s'avère particulièrement exact en ce qui concerne la profession de dentiste, étant donné que le facteur émotionnel des patients est habituellement plus aigü, et par conséquent, plus manifeste. La plupart d'entre nous se flattent de leur habileté à déceler ces facteurs émotionnels et encore plus se félicitent de les traiter. Le but de cette communication est de démontrer que, dans la pratique actuelle, très peu d'entre nous sommes adéquatement orientés et formés pour manier les aspects émotionnels des états que nous traitons. Trop souvent, tous autant que nous sommes, nous ne reconnaissons pas et ne pouvons pas reconnaître les facteurs psychodynamiques et psychophysiologiques impliqués dans l'ensemble du processus. Nous tenterons donc ici d'en exposer quelques-uns.

J'ai été très heureux d'accepter votre invitation à discuter les aspects psychosomatiques de l'art dentaire, parce que, selon notre expérience, les dentistes semblent offrir moins de résistance que les membres des autres spécialités du corps médical, au problème qui nous occupe ici: l'approche psychosomatique.

Bien qu'il ne soit plus désormais original de dire que le concept psychosomatique existe depuis des milliers d'années, cependant il est intéressant de retenir que Socrate, il y a 2500 ans, reprochait aux médecins d'Athènes leur méthode purement organique. Il émit le point de vue que le corps ne pouvait être proprement guéri sans que l'esprit ne soit en même temps soigné; et que la guérison de nombreuses maladies restait encore inconnue, du fait que les médecins n'avaient pas la connaissance de l'homme dans son ensemble. (1) Aristote alla plus loin en suggérant que les émotions sont associées aux réactions physiologiques et que celles-ci ne correspondent pas en intensité aux émotions elles-mêmes, puisque certaines d'entre elles sont subconscientes et, par conséquent, non évaluées. (2). Donc, depuis les premiers philosophes, la science médicale et la biologie ont lutté afin de découvrir une formule d'intégration, une approche qui pourrait offrir à nos études cliniques, tout ensemble, une unité méthodologique et une cohérence empirique. (3).

Il se peut que l'on nous demande: "Comment se fait-il que ce concept ayant été connu des médecins depuis 2500 ans, l'approche psychosomatique n'ait été sérieusement étudiée que depuis les vingt dernières années?" Il semble que l'on puisse répondre en disant que ces con-

*Communication présentée aux membres de la Société Dentaire de Montréal, le 16 septembre 1952.

cepts naquirent à une époque où la médecine était tombée dans les extrêmes d'une orientation purement organique. La médecine est devenue une science naturelle basée sur l'application, à l'organisme vivant, des principes de la physique et de la chimie. Le laboratoire (étant donné l'esprit dans lequel on y travaillait) divulguait une incroyable collection de détails plus ou moins décausés et entraîna inévitablement la perte de la perspective générale. La conception étiologique traditionnelle qui tendait à se localiser, était essentiellement basée sur le brillant concept de Virchow, concernant la pathologie cellulaire. Les symptômes de la maladie étaient désormais interprétés à lumière des changements morphologiques survenant dans les organes. La découverte, par Pasteur et Koch, des micro-organismes pathogènes, fit que l'origine infectieuse des changements pathologiques survenus dans les tissus, devint désormais le point central de recherche. Ce mécanisme bien déterminé devint rapidement le type de toute recherche étiologique. D'autres facteurs, mécaniques, thermiques ou chimiques, qui ont été découverts comme agents causaux, ont été interprétés selon les mêmes principes.

L'extrême vulgarisation des découvertes psychologiques de Freud, à la fin du XIX^e siècle, et peut-être l'importance qu'il a attribuée à l'inhibition sexuelle, en tant que cause de la plupart des névroses, provoqua une réaction dans le corps médical, contre la psychologie et la psychiatrie. En conséquence, le point de vue médical devint plus somatologique que jamais. Alors que, durant la période victorienne, l'inhibition sexuelle a pu vraiment être la cause de la plupart des névroses, l'émancipation sexuelle qui s'est manifestée au lendemain des deux dernières guerres a démontré que les névroses peuvent être également causées par des tensions et des insécurités d'autre nature.

Tout changement de milieu a un retentissement chez l'individu. Il peut surveiller de façon générale et prévisible. D'autres fois, à cause d'une expérience préalable, il peut avoir une portée unique pour l'individu. L'équilibre émotionnel est mal assuré en face des insécurités culturelles

et personnelles; les bouleversements et les conflits contemporains sont pour le moins en partie responsables de ces maladies appelées psychoses, qui, à leur tour, peuvent provoquer des modifications dans les tissus.

L'adaptation psychologique à la tension émotionnelle ou à la contrainte du milieu peut se traduire par le déversement des impulsions tout le long des canaux nerveux, somatiques ou autonomes, en vue du passage à l'action. (4). Une condition continue d'angoisse aiguë, qu'elle soit ou non apparentée aux circonstances du moment, peut être accompagnée de manifestations somatiques. Les mêmes signes et symptômes peuvent être observés chez des patients, sans qu'il y ait angoisse manifeste. Cependant, chez ces derniers, on doit présumer qu'un accroissement de tension psychique subconsciente est la cause de l'accroissement de leur activité nerveuse. On croit que des décharges nerveuses tenaces et constantes causent des désordres dans les muscles, les articulations et la peau, ainsi que dans les systèmes respiratoire, cardio-vasculaire, génital-urinaire, gastro-intestinal (la cavité buccale faisant partie de ce dernier, offre un intérêt particulier aux dentistes). Ceci peut affecter une économie psychique de telle sorte que le patient souffre de troubles fonctionnels dans ces systèmes, sans toutefois ressentir d'angoisse et d'obsession. La plupart du temps cependant, si l'angoisse ne résulte par des symptômes somatiques, du moins les accompagne-t-elle. (5).

L'angoisse excessive ainsi que les symptômes psychosomatiques sont des inadaptations. Les réactions aux contraignantes incitations motrices sont excessives ou déviées, ou bien, dans les meilleurs cas, impropres. Les mécanismes d'adaptation, du point de vue physiologique, se situent dans le système nerveux autonome et dans le système endocrinien. Le procédé ou intégration de l'adaptation s'effectue au niveau des centres les plus élevés du cerveau. (5).

Comme nous le disions plus haut, le terme "psychosomatique" représente un ancien concept, mais l'expression moderne a contribué à la rénovation et à la

renaissance de sa signification. Ajouté au mot "médecine," il signifie seulement "bonne médecine." Comme tel, il est aussi ancien que la médecine elle-même. Mais ce n'est que récemment qu'il a commencé à évoluer de l'art proprement médical vers une méthode basée sur les observations contrôlées. (6).

Actuellement le mot "psychosomatique" a trois significations:

- 1) Le terme "psychosomatique" est utilisé pour définir la manière dont on aborde le problème; c'est un point de vue plutôt qu'un terme indiquant certaines maladies ou certaines symptômes dans lesquels il a été clairement démontré que les facteurs émotionnels ont un rôle à jouer. (7) (8).
- 2) Le terme "psychosomatique" peut être remplacé alternativement par le terme "affections psychosomatiques." A ce propos, on remarque qu'il y a certaines maladies dans lesquelles, l'approche psychologique donne des renseignements pertinents, d'une signification hautement étiologique, jamais obtenue d'une autre manière. (9).
- 3) Il y a, enfin, le point de vue fondamental que l'évolution de toute maladie est "psychosomatique," et que les opérations corporelles influencent constamment l'état émotionnel de l'individu en même temps qu'elles sont influencées par lui. (10).

Une maladie organique, telle une défaillance cardiaque, peut provoquer une frayeur qui, à son tour, peut affecter le cours de la maladie. Inversement, en présence d'une sérieuse angoisse ou crainte, un coeur organiquement sain peut fonctionner de façon erratique et inefficace. Il est certain que l'approche "psychosomatique" signifie, non pas qu'il faille moins observer le "soma," mais qu'il faille observer davantage la "psyché." (11). L'approche psychosomatique, consiste dans l'intégration des techniques psychologiques, physiologiques et cliniques. Il est nécessaire d'examiner les problèmes du patient stéréoscopiquement; c'est-à-dire, qu'il ne faut pas perdre de vue et les aspects organiques et les aspects émotionnels du problème, de telle sorte que l'on

ait une vue en relief et une vraie compréhension du mécanisme dans son ensemble. Il faut se rappeler que ces maladies psychosomatiques ont un long cycle de vie, et que la période d'incubation peut être de plusieurs années. Malheureusement au point où en sont nos connaissances, nos méthodes d'approche sont encore primitives, et les corrélations entre les systèmes nerveux somatique et autonome, et les glandes endocrines, sont si intimes et si complexes, qu'il est difficile d'isoler les unes des autres les réactions de ces différents systèmes.

On a récemment beaucoup écrit dans les revues dentaires au sujet de l'art dentaire psychosomatique. Il est difficile de se représenter comment les lecteurs de tels écrits, peuvent acquérir une réelle compréhension du sujet, à l'aide de ces seuls moyens. Ceci peut être comparé à la lecture d'articles de médecine, publiés dans les magazines populaires de vulgarisation, destinés à la masse des profanes. De même que l'on ne s'attendrait pas à formuler un diagnostic médical adéquat, sans avoir été préalablement exercé à l'anatomie, la physiologie, la chimie, la pathologie, la médecine, etc., de même, l'on peut difficilement s'attendre à ce que le dentiste utilise l'approche psychosomatique, sans tout d'abord étudier les traits généraux de la motivation humaine, et du développement de la personnalité, avec ses adaptations et ses inadaptations. Il doit être capable de déceler l'angoisse sous ses nombreuses formes d'expression, et il doit s'être familiarisé avec la connaissance des névroses, comme il l'est avec celles des bactéries. Sans cette connaissance, l'étude et la lecture qu'il fait de la littérature psychosomatique, ne peut l'aider en rien, mais seulement l'embrouiller.

Il est difficile, sinon impossible, d'enseigner l'approche psychosomatique à ceux dont la formation et l'orientation "orthodoxe" se sont figées. A leurs yeux, les dentistes et les médecins qui semblent avoir acquis quelques notions en ce qui concerne le domaine psychologique ne méritent pas d'être pris au sérieux, ou bien sont assimilés au groupe des médecins plus au moins bizarres qui se sont égarés dans la philosophie. Par contre,

les jeunes médecins et dentistes, encore étudiants, assimilent cet enseignement avec autant de facilité que d'intérêt.

Ces praticiens, dont la formation a été purement organique, offrent à l'approche psychosomatique, une grande résistance. Cette attitude les met sur la défensive. Ils adoptent cette attitude, pour parer à l'insécurité émotionnelle suscitée par l'attaque portée à leur formation orthodoxe. Une courte discussion sur la résistance, peut donner quelque lumière, que fasse comprendre pourquoi certains médecins, d'excellente formation, ne peuvent s'incliner devant l'évidence des faits qui leur apparaissent chargés, émotionnellement; alors que d'autres, reconnaissent ces mêmes faits comme concluants, puisque, en ce qui les concerne, ces faits n'ont aucune charge émotionnelle.

L'étude de la résistance chez nos patients et en nous-mêmes, illustre bien les plus récents concepts de la psychiatrie. On peut dire que la plus grande partie de la pratique et de la recherche dépend de la compréhension que l'on a de cette résistance et de la valeur qu'on lui attribue. Le fait d'admettre ou de nier la présence en nous, de forces motivantes qui nous sont inconnues et en désaccord avec ce que nous semblons penser de nous, détermine sans doute le succès ou l'échec des efforts que nous faisons pour comprendre les récents concepts de la psychologie. Il existe en nous une forte motivation qui nous pousse à rejeter ces idées, et très souvent de la façon la plus arbitraire. L'ensemble de ces forces et de ces motifs qui militent contre l'acceptation de ces composantes de notre personnalité peut être appelé "résistance." (12).

D'une façon générale, la manière dont nous réagissons à l'angoisse est la base de toutes nos actions: soit que nous évitions les situations qui la provoquent, soit que nous devions la supporter, à cause des avantages qui en résulteront. Qui, parmi nous, n'a pas eu l'occasion d'observer chez un confrère, le bouleversement provoqué par quelque nouveau concept, survenu dans notre domaine, du fait que l'acceptation de ce concept le forcerait à désapprendre considérablement et à étudier davantage? Ainsi, le dentiste, afin

de se sentir sain et sauf, peut ridiculiser, rejeter ou amenuiser ce concept, dans le seul but d'éviter l'angoisse qui résulterait de l'insécurité engendrée par lui. En d'autres termes, il peut, dans le seul but d'éviter l'insécurité et l'angoisse, rejeter une idée manifestement vraie. C'est pour cette seule raison que les débutants en art dentaire, offrent moins de résistance que ceux qui ont déjà pratiqué avec succès.

Je ne suis nullement enclin à partager l'opinion de ceux (13) qui avancent que la personnalité du dentiste ou du médecin ne peut être nuisible ou provoquer quelque tension sur le coeur, le foie, les reins, ou la respiration. J'incline beaucoup plus à croire que la compétence du médecin dépend autant de ses aptitudes et de son habileté, que de ses études et de son expérience; et comme dans toute autre sphère d'activité humaine, les certificats et les diplômes ne sont pas des mesures infaillibles de compétence. Un médecin n'obtiendra jamais des résultats optima dans son propre domaine, quelle que soit la perspicacité de son diagnostic ou l'habileté de ses mains, s'il ne tient pas compte des besoins émotionnels de son patient. L'art de comprendre et de manier les besoins émotionnels du patient, étend le champ d'action et la tâche du thérapeute. Le docteur, qui ne reconnaît pas les facteurs émotionnels dans la cause et le traitement des processus de la maladie, ne donne pas un service complet. Quelques exemples simples peuvent illustrer ce point.

Il est reconnu qu'en présence de frayeur ou d'angoisse, les glandes parotides ne fonctionnent pas adéquatement. L'individu se plaint alors, d'avoir la bouche sèche, la langue épaisse, et mauvais goût. Il y a un nombre considérable de gens qui sont dans un état bénin, mais constant, de tension et d'angoisse. Le rapport entre la diminution de la sécrétion salivaire et la tension nerveuse implicite, n'est pas correctement interprété par le médecin, aussi longtemps qu'il n'est pas conscient des conséquences dentaires éventuelles, inhérentes à ce rapport, et qu'il n'est pas entraîné à les déceler. Autrement, il peut lui arriver de traiter l'effet de la maladie plutôt que la cause.

Il serait raisonnable de suggérer que les modifications survenues dans la sécrétion salivaire pendant plusieurs années soient susceptibles d'affecter la physiologie des dents et des gencives. Pour remédier à ce type de carie, l'intervention psychiatrique pourrait réussir davantage que maints procédés, aujourd'hui employés.

Un autre exemple du problème dentaire où les facteurs émotionnels interviennent, est celui du patient qu'on rencontre de temps à autre, qui n'a jamais l'impression que ses dentiers sont bien ajustés. Il va de dentiste en dentiste cherchant en vain un meilleur confort, faisant collection, entre temps, de dentiers nombreux et inutiles. D'après l'interprétation psychiatrique, on découvre que certains de ces patients appartiennent au type "buccal," dont les besoins buccaux n'ont jamais été réellement satisfaits durant leur enfance, et qui, en tant qu'adultes, se servent de la cavité buccale comme du lieu de substitution à l'assouvissement de leurs besoins, lorsqu'ils sont sous tension. L'ajustement qu'ils poursuivent peut résider dans une toute autre direction et les dentiers représentent seulement un déplacement de leurs vœux infantiles. Bien que la psychodynamie impliquée ici soit en vérité très complexe, elle est citée en exemple pour la seule raison que ce type de patient est loin d'être rare.

Il y a aussi le patient qui désire faire transformer ses incisives, soit pour combler l'espace qui les sépare, soit pour améliorer leur émail ou leur alignement. Alors que beaucoup sont satisfaits des résultats obtenus, il y en a toujours qui sont mécontents, qui se plaignent constamment et amèrement, de ce qu'ils estiment être un mauvais résultat, bien qu'aux yeux d'un observateur impartial ce résultat soit excellent. Du point de vue de la psychiatrie, on peut découvrir que ces patients ont essayé de plaire à quelqu'un qu'ils aiment ou d'impressionner leur entourage, espérant que l'amélioration dentaire réussirait dans ce sens. Trop souvent, ils deviennent tous amèrement déçus, lorsque la réussite ne vient pas, et ils ont tendance à blâmer le dentiste, au lieu d'admettre qu'il y a peut-être quelque chose, dans leur personnalité, qui

aurait besoin d'être redressé plutôt que leurs dents. De tels patients ont un besoin inconscient et insatisfait de se sentir indispensables, désirés et aimés.

Le grincement des dents, et beaucoup d'autres malaises qui amènent le patient chez le dentiste ont leur origine dans la nervosité ou les névroses. Les soins une fois donnés, les malaises tendront à revenir à leur état primitif, après un certain temps, parce que la névrose du patient ne change pas.

Bien que la sympathie, dont le médecin fait preuve pour les besoins et la souffrance du patient soit bonne et reconfortante, cependant pour une personne de formation scientifique telle qu'un médecin ou un dentiste, il est exigé davantage dans le sens de la compréhension de ces mêmes besoins. Sympathie signifie que le docteur comprend les sensations du patient, seulement parce que lui-même a déjà éprouvé certaines de ces sensations. Quand un patient présente une attitude complètement étrangère à l'expérience personnelle du docteur, ce patient lui devient antipathique, et le docteur tend alors à ridiculiser les symptômes et les craintes ou même à les minimiser. En conséquence, il est indispensable que le docteur développe un certain degré d'empathie, qui lui permette de comprendre le mécanisme de la conduite du patient, lorsque celle-ci lui est parfaitement étrangère. Bien que l'empathie puisse être enseignée aux médecins, tous ne l'acquièrent pas, parce qu'elle se trouve intimement liée à l'éducation reçue pendant l'enfance, au cours de laquelle on aura dû apprendre à savoir envisager le point de vue de l'autre. Bienheureux en vérité est le patient qui tombe entre les mains d'un docteur qui n'a pas seulement de la sympathie pour ses patients, mais également de l'empathie!

Au cours du processus de l'anesthésie locale et spécialement de l'anesthésie générale, on peut observer chez le patient de nombreuses réactions émotionnelles. Il est un fait reconnu d'après l'observation générale sinon personnelle, qu'il existe une peur de l'inconnu chez beaucoup de gens. Les enfants qu'on a élevés en les poussant dans de nouvelles situa-

tions sans appui adéquat, sans explication, sans direction, apprennent à faire face à ces situations difficiles avec crainte et tremblement. Plus tard, dans l'existence, quand ils deviennent plus mûrs et plus expérimentés, ils peuvent réussir à masquer leur frayeur, même à leurs propres yeux, par suppression, en autant que la situation à envisager n'est pas trop effrayante. S'il arrive cependant que les procédés dentaires soient l'une de ces craintes, ils peuvent transporter cette peur dans l'anesthésie. Etant donné que l'anesthésie elle-même peut causer de la frayeur, la réaction combinée des deux peut être tout à fait disproportionnée aux besoins de la situation. En présence de ce genre de panique, le dentiste doit exercer une prudence toute particulière.

Beaucoup de dentistes ont tendance à devenir trop agressifs dans cette situation de frustration, alors qu'au contraire, il leur serait nécessaire de supprimer leur propre anxiété et hostilité, s'ils désirent arriver à une induction sans heurts. Dans ce cas, comme dans beaucoup d'autres, un emploi plus ample de la psychologie, permettra au dentiste d'infliger moins d'anesthésique au patient, de sorte que l'intervention se produira sans choc, le rétablissement sera plus rapide et le traumatisme psychologique moindre.

Chaque individu exprime son angoisse d'une manière qui lui est particulière. Quand il la manifeste ouvertement, il l'éprouve avec tout le malaise physiologique et somatique que comporte la menace d'un désastre imminent. Elle peut s'exprimer par l'intermédiaire du système cardiovasculaire, sous forme de palpitations, d'irrégularités rythmiques, de malaises précordiaux, de dyspnée et d'étouffements. Tous cependant, n'éprouvent pas l'anxiété d'une manière si directe. Certains peuvent faire disparaître l'expérience de l'angoisse du niveau de leur perception consciente et lui substituer d'autres expressions telles que des manifestations hystériques, ce qui n'est pas rare dans la pratique dentaire. Ils peuvent faire dévier cette angoisse directement vers les organes ou fonctions somatiques. Dans ce cas, l'angoisse, par l'intermédiaire du système nerveux autonome,

est transformée en troubles qui affectent les fonctions des différents organes ou parties du corps. L'angoisse peut converger sur une expérience lointaine, telle que la peur d'étouffer, ressentie au cours d'un exercice de natation durant l'enfance; ou telle qu'une frayeur, éprouvée au cours d'un examen déplaisant des voies respiratoires, à l'occasion d'un traitement quelconque. Ou encore l'angoisse peut être faiblement masquée et conduire alors à l'obsession, à un comportement compulsif, ou bien, elle peut être répudiée et projetée ailleurs, sur le dentiste, par exemple, sous forme de soupçons et de méfiance. Lorsque l'angoisse est exprimée indirectement, elle n'est plus reconnaissable comme telle et prend un tout autre aspect. Dans ce cas, le patient peut dire: "Docteur, je n'ai pas peur, allez-y, faites ce que vous voulez". Il peut se produire ici, à la place de l'angoisse, des modifications vasomotrices et peut-être même la syncope. Ou bien, le patient peut se servir des voies gastrointestinales, pour exprimer son anxiété, sous forme de nausée, vomissements ou de diarrhée. De toute façon, il est possible que le patient et même le dentiste soient étonnés de la tournure que prendront les événements. Voilà ce qui peut arriver quand l'angoisse n'a pas été reconnue et évaluée et qu'elle se fixe ailleurs, sur d'autres organes et d'autres systèmes. Il est très important de noter ici, que non seulement l'angoisse, mais aussi la peur dissimulée, la colère et le ressentiment peuvent produire les mêmes effets.

Une anesthésie réussie produit en quel que sorte une satisfaction chez l'anesthésiste. Mais au contraire, toute manifestation malencontreuse, peut provoquer chez lui la frustration. Comme nous le savons tous, la frustration engendre une conduite agressive. (14). L'agression peut s'exprimer ouvertement, comme dans les expressions suivantes: "Voyons, ne soyez pas ridicule", ou bien, "Je ne vous fais pas mal, aspirez normalement". Ou encore, "Ceci n'est qu'une aiguille, ne vous conduisez pas en enfant". Et encore, "Ce patient est obstiné. Que peut-on attendre de lui?" Si l'agression n'est pas exprimée ouvertement, elle peut être détournée en

injuriant l'assistante, par exemple, ou en jetant les instruments sur la table, en frappant les portes de l'armoire aux instruments, en bousculant le tabouret, en comprimant plus que nécessaire le sac de l'appareil respiratoire. Ce type d'agression survient lorsqu'une expression plus directe est inacceptable, pour une raison ou pour autre. L'anesthésiste devrait approfondir les causes d'une telle conduite chez le patient et en lui-même. Trop souvent les procédés médicaux et dentaires deviennent trop routiniers, et tendent à mettre en péril le bien-être du patient. Alors qu'elles peuvent paraître au dentiste comme un vieux disque rebattu, les remarques du patient, ses griefs et ses constatations, sont pour ce dernier, tout à fait réelles et des causes d'anxiété.

L'intérêt que le dentiste porte à l'anesthésie est assurément très naturel. Le soulagement de la souffrance est aussi important dans l'art dentaire qu'il l'est dans tout autre branche de la chirurgie ou de la médecine. Mais on doit souligner le fait que les qualités qui constituent un excellent chirurgien-dentiste, ne sont pas nécessairement celles qui produisent une anesthésie calme. C'est pour cette raison que, du point de vue de l'approche psychosomatique, il est quelquefois nécessaire de faire quelques adaptations. L'un des obstacles, dans l'étude de l'anesthésie pour le chirurgien-dentiste, consiste en ce qu'il aborde ce domaine de la même façon qu'il aborde celui du travail de la manipulation dentaire. Il faut que le dentiste se rende compte que les besoins psychologiques fondamentaux d'un patient sont fort différents lorsqu'il s'agit d'une anesthésie, que lorsqu'il s'agit d'un simple travail mécanique dans la bouche.

S'il est nécessaire de démontrer davantage qu'une approche psychologique correcte peut réduire la quantité d'anesthésique, de même que ses conséquences physiques et mentales, on n'a qu'à se souvenir des méthodes d'anesthésie employées avant la découverte des anesthésiques chimiques. Car, au temps qui précéda la découverte de l'anesthésie, les grandes et les petites opérations, étaient effectuées au moyen de l'anesthésie mentale seulement. Des documents du temps

et des publications à cet sujet existent encore. Même maintenant, à l'occasion, on entend parler de toutes sortes d'opérations réalisées sous hypnose. Tandis que dans certains cas, l'emploi de cette méthode soit justifié, il arrive que souvent l'hypnotiste s'en serve uniquement pour satisfaire à son sens du drame et pour se faire de la publicité, puisque des anesthésiques supérieurs à l'hypnose existent, pour la moyenne des cas. Le terme "hypnodontia" apparaît de plus en plus dans la littérature dentaire de ces dernières années, et soulève de nombreux malentendus et discussions pour ou contre ce procédé. Il s'agit ici de comprendre correctement, et d'insister sur le point que, tandis qu'il est aisé d'apprendre la technique de l'hypnose, c'est une autre histoire que d'en exercer la pratique thérapeutique avec sécurité et succès. On doit souligner que l'hypnose "per se", n'est ni une thérapeutique, ni une technique thérapeutique. Les patients traités par la chirurgie, le sont (i.e. sont opérés) non *par* l'anesthésie, mais *sous* anesthésie; et de même, les malades émotionnels peuvent être traités psychothérapeutiquement, non *par*, mais *sous* hypnose. (15) (16) (17) (18) (19) (20) (21).

Tandis que les dentistes qui utilisent l'hypnose dans leur pratique le font uniquement pour soulager la souffrance ou produire l'anesthésie, il serait cependant nécessaire qu'ils acquièrent une connaissance en profondeur de tous les aspects de l'hypnose. De même que le chirurgien qui ouvre un abdomen doit être prêt à affronter toute éventualité chirurgicale, de même, celui qui se sert de l'hypnose, doit être préparé à toute malencontreuse manifestation susceptible de survenir durant son emploi. L'induction de l'hypnose varie avec chaque individu. Une description des techniques employées ne peut être entreprise ici. Il suffit cependant de noter que pour employer l'hypnose selon les données de cette science et avec succès, il est nécessaire d'acquérir la connaissance de la psychodynamique de la personnalité, puisqu'il s'agit primordialement d'une situation humaine, impliquant une subtile interaction des aspirations de l'homme. L'hypnose consiste en un trans-

fert intense dans les relations mutuelles. (22). Donc, l'hypnose constitue un instrument qui peut être utilisé de plusieurs façons et avec beaucoup de souplesse, mais seulement dans la mesure où elle relève du problème thérapeutique, et où elle est de quelque secours pour une psychothérapie d'ensemble. Tandis qu'en ce qui concerne l'emploi des machines à gaz, ou de l'anesthésie intraveineuse, il suffit d'un instant de tranquillisation avant de commencer. En psychoanesthésie, une préparation beaucoup plus longue est requise comme préliminaire à l'induction de l'anesthésie.

La psychoanesthésie, contrairement à l'anesthésie chimique, ne semble pas bloquer le passage des stimuli douloureux au cerveau. Dans l'hypnose, les stimuli pénibles et prolongés peuvent ne pas entraîner de plaintes verbales, de contractions faciales, de retraits du membre malade ou de modifications dans la respiration, pour la seule raison que ces fonctions sont, au moins en partie, sous le contrôle de la volonté. Toutefois, on a constaté chez ces patients des modifications dans les fonctions qui échappent au contrôle de la volonté. (23).

A la suite d'interventions chirurgicales de peu d'importance, telles que l'extraction d'une dent ou l'incision d'un abcès, on n'observe guère de choc, que l'hypnose soit employée ou non. Mais à la suite d'interventions chirurgicales sérieuses et prolongées, entreprises sous hypnose, le choc opératoire peut être démontré. Certains auteurs nient ce fait avec emphase. (24). Toute évidence de choc et de malaise post-opératoire, peut être masquée par suggestion post-hypnotique, généralement donnée pendant l'opération. Alors que le patient peut n'avoir aucun souvenir de souffrance à la suite de tous ces procédés, cependant, une fois réhypnotisé, plus tard, il peut ordinairement se rappeler du siège de la douleur et la décrire telle qu'il la ressentit, au moment de l'opération. Toute amnésie apparente est le résultat de la suggestion et nullement due à l'absence de sensations. Ceci n'est pas le cas lorsqu'on emploie l'anesthésie chimique.

L'une des principales objections faites

à la psychoanesthésie, c'est la difficulté et l'incertitude d'arriver à un degré suffisant d'hypnose. Ceci s'applique surtout aux personnalités compulsives-obsessives. Très souvent, l'hypnose n'est pas suffisamment profonde pour les interventions chirurgicales. Chez certaines personnes, la structure de la personnalité est telle qu'il est plus sage de ne pas amplifier le transfert du patient au dentiste. Certaines tendances ou désordres de cette personnalité engagent à éviter cette étroite relation. Et en dernier lieu, il y a l'éternel préjugé contre l'hypnotisme lui-même.

Malgré ces inconvénients, la psychoanesthésie, comparée à l'anesthésie chimique, comporte certains avantages. Une fois qu'une profonde hypnose, aboutissant à une anesthésie satisfaisante, est obtenue elle peut être réitérée n'importe quand, pourvu que la relation patient-docteur, n'ait pas été fondamentalement modifiée entre temps. Le renouvellement de l'hypnose, dans ces conditions, n'est qu'une question d'une minute ou deux. Chez de bons sujets, l'hypnose peut être induite à nouveau par un autre dentiste qui a été mis "en rapport" (dans le sens psychologique de cette expression) avec le patient par le premier thérapeute. La psychoanesthésie peut être une expérience agréable, sans la tension nerveuse habituelle, associée à l'anesthésie chimique. Elle peut être maintenue pendant de longues périodes sans danger, et interrompue à volonté. Elle n'ajoute aucun fardeau aux systèmes circulatoire, respiratoire, hépatique ou rénal. La nausée et les haut-le-cœurs peuvent être réduits au minimum. A cause de tout ceci, la guérison peut se faire plus rapidement. Si d'autres opérations devaient avoir lieu plus tard, la psychoanesthésie peut être réappliquée sans difficulté.

Du point de vue psychosomatique, il semble que l'anesthésie idéale soit une anesthésie "équilibrée". L'anesthésie équilibrée pour un anesthésiologue, représente une combinaison d'agents anesthésiques, administrés simultanément ou successivement. Cette combinaison produit une anesthésie plus désirable que celle obtenue par un seul agent. Il est possible qu'une anesthésie équilibrée, au sens le

plus large de l'expression, doit inclure l'emploi de l'hypnotisme ou de la suggestion en même temps que d'un agent anesthésique chimique. Une telle alliance s'est avérée très satisfaisante. Dans presque tous les cas où cette méthode a été pratiquée, la quantité d'anesthésique a été réduite d'environ 25 à 85%. Si l'anesthésie produite par l'hypnose doit être acceptée par la profession dentaire, son usage doit être confiée uniquement à des personnes compétentes. Il faut admettre que son utilité dans les opérations majeures est extrêmement restreinte. A l'occasion, elle peut venir en aide dans les opérations mineures, sur des sujets appropriés. Ses plus grandes chances de succès dans ce domaine, semblent résider dans l'emploi qu'on en fait comme complément à l'anesthésie chimique, dans le cadre d'une anesthésie équilibrée.

Tandis que l'anesthésie peut être considérée comme l'un des phénomènes les plus dramatiques de l'hypnose, on doit reconnaître que, pratiquement, elle en est l'un des moindres. L'hypnose peut être comparée à un scalpel psychologique, qui est employé pour couper au travers des résistances inconscientes et conscientes du patient. Elle peut ensuite être utilisée comme un microscope psychologique, pour amener en pleine lumière, et dans un foyer amplifié, la matière psychologique qui, sans elle, serait demeurée voilée et disjointe. On peut également s'en servir comme d'une curette psychologique, pour enlever un amoncellement de déchets, et pour canaliser les émotions plus normalement, dans le sens du courant de la personnalité. Enfin, on peut l'utiliser comme un point de suture psychologique, pour maintenir une cohésion entre les suggestions faites pendant l'hypnose. Mais on doit savoir user de ce scalpel avec autant de dextérité que le chirurgien. On ne doit pas être moins exercé à l'usage de ce microscope que le pathologiste ne l'est à celui du microscope optique. Sans cela, un échec grave peut survenir.

Résumé

On a tenté de démontrer ici que la lecture sur les aspects psychosomatiques

de l'art dentaire ne suffit pas à apprendre au dentiste comment appliquer ces méthodes. Il faut qu'il soit en même temps renseigné sur le psychodynamisme de la personnalité humaine avec ses adaptations et ses inadaptations.

Il est recommandé, qu'au cours de ces études, l'étudiant apprenne à évaluer ses propres résistances. Il lui faut aussi essayer loyalement d'acquérir l'empathie voulue.

La place que l'hypnose occupe dans l'art dentaire, est discutée et exposée à grands traits, dans ses lignes générales. Les avantages et les inconvénients de ce procédé sont également indiqués.

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XXVIèmes JOURNÉES DENTAIRES DE PARIS

du 26 au 30 Novembre 1952

Cet important Congrès international groupera cette année encore des Confrères de différents pays. Le Comité d'Organisation est particulièrement satisfait d'annoncer déjà la participation de:

Mr BEAUREGARD, Paris

Dr Pierre BERNARD, Paris

Mr BONSACK, Bienne

Dr ELLIS, Folkstone

Mr FRASER, Londres

Mr MATTHEWS, Cambridge

Dr Gérard MAUREL, Paris

Mr MUSEY, Hutington, U.S.A.

MM. MUZJ, Maj, LUZJ & MIOTTI, Bologne

Mr le Prof. PALAZZI, Milan

Mr PENNINO, Bruxelles

Mr PHEULPIN, Suisse

Dr POLUS, Bruxelles

Mr PRENEN, Bruxelles

Dr ROOS, Bâle

Mlle SCHWARZ, Bruxelles

Dr STRINI, Rome

Mr A. de VRIENDT, Bruxelles

Dr WATRY, Bruxelles

le programme définitif n'étant pas encore arrêté.

Les conférences et les tables-cliniques se tiendront à l'Ecole Dentaire de Paris.

Une exposition de fournisseurs est d'ors et déjà assurée.

Les Festivités qui se dérouleront dans le cadre des XXVIèmes JOURNÉES DENTAIRES DE PARIS devront laisser, comme par le passé, le souvenir d'un travail fécond accompli sous le charme de la Capitale.

Le Banquet aura lieu au Restaurant de la Tour d'Argent sous forme de dîner dansant, avec illumination de Notre-Dame de Paris.

Ce Congrès qui est la seule manifestation professionnelle ayant lieu en France pendant l'année 1952 aura de ce fait, nous le pensons, un retentissement particulier.

Nous recommandons aux Confrères étrangers qui désirent participer à ce Congrès d'adresser le plus rapidement possible leur adhésion à Mr L. J. CEC-CONI, Secrétaire Général, 85, rue de Rivoli, Paris (1er).

Nouvelles de l'Association

Quel montant le Canada dépense-t-il pour la recherche dentaire?

1. Le Comité associé des Recherches dentaires du Conseil National des Recherches a pris beaucoup d'envergure depuis son organisation en 1945; il patronise actuellement un programme considérable de recherche dentaire. Au cours des quatre dernières années, le budget annuel du Comité comportait un item d'environ \$30,000 pour des octrois de recherches. \$30,000.00
2. L'Université de Toronto, grâce à son Comité de Conseil pour la Recherche scientifique, a des fonds disponibles pour la recherche. Les membres du personnel de la faculté dentaire peuvent demander des bourses de recherches, de même que ceux des autres départements de l'Université; ces octrois sont donnés au mérite. Environ \$3,000 par année ont été mis à la disposition de la faculté dentaires ces dernières années. \$3,000.00
3. Le gouvernement fédéral a consacré des argents à la recherche en hygiène publique. Ces deux dernières années, la faculté dentaire de l'Université de Toronto a reçu de cette source des octrois annuels se chiffrant à environ \$15,000. \$15,000.00
4. Différents organismes ont fourni diverses sommes pour la recherche dentaire, cette année. Le Comité des Recherches de l'A.D.C. a pu contrôler les suivants:

a) Fondation de Recherche sur le sucre	\$7,500.00
b) Fondation O'Keefe	6,000.00
c) Fondation W. E. Mason	5,000.00
	\$18,500.00
5. D'autres ressources pécuniaires sont disponibles pour la recherche dentaire, p.e., la Fondation du Cancer de l'Ontario.
6. La somme totale consacrée à la recherche se chiffre cette année, à \$66,500. \$66,500.00

7. Ces chiffres indiquent bien qu'il est relativement facile de financer des projets de recherche dentaire, qui soient bien au point. La plus grande difficulté réside dans le manque de fonds pour former un personnel de recherche et pour payer des gens habitués à ce genre de travail pour diriger des projets de recherche.

W.G. McL.

Délibérations de 1952

Les délibérations de la réunion annuelle de l'A.D.C. en 1952 (version anglaise) ont été mises à la poste récemment. La version française sera prête très bientôt.

Déjeuner à Londres pour les diplômés canadiens

Le 18 août, un déjeuner fut organisé sous les auspices de l'A.D.C. pour grouper tous les dentistes canadiens pratiquant à Londres ou dans la banlieue. Le Dr V. H. Jekyll, de Londres, s'était chargé de l'organisation. Parmi les convives, on remarquait: R. H. Aljoe, A. A. Garfat, F. D. Derrick, S. Cripps, C. L. Endicott, R. G. Simpson, Harvey Schwalm, C. de Vere Green et V. H. Jekyll. Le Brigadier E. M. Wansbrough, le Dr Ernest Charron et le secrétaire de l'A.D.C., étant à Londres à ce moment, assistèrent à ce déjeuner. M. H. Parker Buchanan, secrétaire de l'Association Dentaire Britannique était l'hôte d'honneur. Après la santé de la reine, le Dr Harry Schwalm proposa un toast en l'honneur des invités et M. H. Parker Buchanan répondit en leur nom. Le Dr C. L. Endicott proposa la santé de l'Association Dentaire Canadienne et le Dr Charron se fit le porte-parole de l'Association. Le Secrétaire de l'A.D.C. fit une courte allocution pour décrire la situation de l'exercice dentaire au Canada. Quatre autres dentistes canadiens pratiquant à Londres, les Drs K. C. Campbell, Joseph Finmark, G. R. Ferguson et Frank Abbot, avaient fait

parvenir au groupe leurs regrets de ne pouvoir assister parce qu'ils étaient en vacance, à ce moment.

Rejet d'un projet d'assurance-dentaire commerciale

Des compagnies d'assurance de l'Etat de New-York avaient projeté d'établir un plan d'assurance-dentaire-groupe. Le procureur-général de l'Etat vient de déclarer illégale cette initiative. D'après ce plan, les compagnies auraient eu la permission de faire signer des contrats à des dentistes pour que ceux-ci prodiguent des traitements dentaires aux personnes assurées. Le Département de Surveillance des Assurances vient de tuer le projet dans l'oeuf. Ces polices auraient forcé les assurés à retenir les services des seuls dentistes reconnus par les compagnies d'assurance; de cette façon, des firmes commerciales auraient exercé un certain contrôle sur l'exercice d'une profession. Le procureur-général exposa son opinion en ces termes: "Tout plan qui exercerait une influence sur l'exercice d'une profession, dont le rendement repose, d'une part, sur la confiance du patient envers son thérapeute et, d'autre part, sur la responsabilité et l'habileté du professionnel, renferme, *in se*, des vices évidents." Cependant on a bien spécifié que cette décision n'affecte en rien les organisations, sans but lucratif, qui donnent les mêmes avantages et qui sont généralement patronisées par les Sociétés dentaires.

Membres honorés au Congrès de St-Louis

L'American College of Dentists vient d'admettre comme membres, à sa dernière réunion tenue à St-Louis, le 7 septembre, les dentistes canadiens suivants: O. L. Craft, Halifax; H. M. Eaton, Halifax; G. Franklin, Montréal; A. M. Hord, Toronto; H. L. Freeland, Calgary; G. C. Darts, Vancouver.

Service de bibliothèque

Les membres ont reçu un catalogue de la bibliothèque de l'A.D.C. Quand la bibliothèque recevra d'autres volumes, le Journal publiera, au fur et à mesure, la liste de ces récentes acquisitions

sous le titre "Acquisitions récentes de la bibliothèque."

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- SMITH, K. M.—An introduction to the study of viruses. 1950. 106p.
- (Les volumes écrits par E. Samson sont un don de Mad. E. Samson, de Bournemouth, Angleterre.)

Une technique simplifiée pour assurer

LA STABILITE DES PROTHESES TOTALES DU HAUT MEME ANCIENNES

par JACQUES FILDERMAN

Professeur à l'Ecole Odontotechnique de Paris, Lauréat de l'Académie de Médecine

Deux sortes de cas sont à envisager :

A.—Une personne se présente avec un vieil appareil exécuté peu de temps après des extractions, qui articule bien, mais qui ne tient plus. Peut-on rétablir, d'une façon sérieuse, la stabilité de cet appareil ?

B.—Un appareil vient d'être fait. Il semble ne pas présenter de défaut, et cependant il ne tient pas. Peut-on le modifier de façon à corriger ce grave défaut ?

Dans les deux cas, la réponse est affirmative.

Par quel moyen ? Oh ! celui-ci n'a rien de mystérieux, ni de miraculeux. Il n'est même pas tout à fait original, puisqu'on l'utilise depuis longtemps dans certaines techniques de prise d'empreintes, car il s'agit du *joint périphérique*.

C'est, je crois, Wallis-Davy qui a été l'un des premiers à préconiser cette technique pour la prise d'empreintes. Dans ce but, il garnissait les bords d'un porte-empreinte construit avec un disque de phonographie, d'un bourrelet de pâte qui lui assurait une étanchéité parfaite lors de la prise de l'empreinte définitive. Depuis cette technique pour la prise des empreintes a subi de nombreuses variantes, mais à ma connaissance, personne n'a jamais utilisé la méthode du *joint périphérique* sur un appareil TERMINE, que celui-ci fut de date récente ou non.

Ce qui m'a conduit à adopter ce procédé, qui m'a déjà permis d'obtenir des résultats quasi-miraculeux, c'est le principe de la *machine pneumatique* qui est décrite dans tous les manuels de physique élémentaire : lorsqu'on fait le vide sous une cloche qui repose sur une surface plane, la *pression atmosphérique* agit sur la cloche avec une force telle qu'on ne peut plus la soulever. Or, la cloche n'a de contact avec la surface sur laquelle elle

est posée que par ses bords. Ses parois, c'est le cas de le dire, sont dans le vide, et cependant elle adhère avec une force considérable.

En m'inspirant de ce principe, j'ai pensé que si nous avions la possibilité de garnir un appareil prosthétique d'un joint périphérique étanche, celui-ci devrait adhérer la muqueuse de la même façon que la cloche adhère à la plaque sur laquelle elle est posée, même s'il n'est pas (à l'intérieur du joint) partout en contact avec la muqueuse, et même s'il intercepte de véritables chambres, plus ou moins étendues, qui se sont formées à la suite des extractions. Si ce raisonnement est juste, n'importe quel appareil, aussi mal adapté à la muqueuse qu'il soit, doit tenir et tenir très bien, à partir du moment où il a été garni d'un joint périphérique véritablement étanche.

Et l'expérience m'a démontré que ce raisonnement était parfaitement juste car, chaque fois que je l'ai mis en application, la réussite a été totale.

Qu'il se fût agi d'un appareil construit récemment, en résine, ou d'un ancien appareil fait peu de temps après des extractions et qui avait subi des modifications, ou d'un vieil appareil en caoutchouc qui n'a jamais tenu, le résultat a été chaque fois parfait. J'ai obtenu non seulement que l'appareil tienne, mais il tenait au point qu'on avait du mal à l'enlever, et qu'en tirant dessus on déplaçait la tête.

Il ne s'agit là d'aucune exagération et les praticiens qui essaieront ce procédé seront stupéfaits des résultats qu'ils obtiendront.

La technique est fort simple et à la portée de tous. Elle ne demande ni connaissances spéciales, ni outillage compliqué. Il suffit d'avoir à sa disposition une boîte

de pâte de Kerr, verte en bâtons, N° 2. Il ne faut surtout pas se servir de cire, ou d'un pâte a empreintes quelconque, car ces substances risqueraient de se ramollir au cours des différentes manipulations, et empêcheraient l'étanchéité de se faire, ce qui conduirait à un échec complet. La pâte de Kerr verte en bâtons présente le double avantage d'être extrêmement plastique lorsqu'elle est chaude, ce qui permet d'obtenir un modelage précis, et de durcir instantanément, ce qui empêche toute déformation pendant l'exécution du travail.

On procède de la façon suivante:

Les contours de l'appareil étant convenablement nettoyés et séchés, on fait fondre l'extrémité du bâton de pâte de Kerr qu'on laisse couler sur les bords de l'appareil, de façon à former un bourrelet épais de quelques millimètres sur une longueur de deux centimètres. On porte l'appareil en bouche et on exerce une pression sur la plaque pour que la pâte se modèle bien sur la muqueuse. On recommence de la même façon, et on continue jusqu'à ce qu'on ait fait le tour complet de la plaque. Il faut noter que, aussi longtemps que ce tour n'est pas complètement achevé, on ne remarque aucune amélioration de la situation, et cela se conçoit. Mais, dès que le dernier segment du joint est fait, l'appareil se trouve brusquement verrouillé

tout comme une porte qui ne peut plus s'ouvrir dès qu'on a poussé le verrou.

Si, par extraordinaire, ce résultat n'est pas obtenu d'emblée, cela signifie que le joint n'est pas hermétique, et qu'il y a quelque part une fuite d'air. Dans ce cas, il faut recommencer l'opération sans rien détruire de ce qui a été fait, c'est-à-dire en augmentant la surface du bourrelet, et continuer jusqu'à ce qu'on obtienne le résultat recherché, c'est-à-dire que l'appareil tienne au point qu'on ait de la difficulté à l'enlever. Cela se produira fatalement à un moment donné, et presque toujours bien plus vite qu'on ne le pense.

Il y a intérêt à ce que les bords gingivaux montent le plus haut possible, et que la plaque s'étende aussi loin que possible du côté du voile du palais. Il est préférable, aussi, de faire les bords gingivaux très épais, sans pour cela augmenter l'épaisseur de la gencive, afin de ne pas trop modifier l'expression du visage.

L'appareil, ainsi préparé, est confié au prothésiste qui doit reproduire le joint de façon absolument rigoureuse, en prenant soin de ne pas le modifier au polissage.

Les résultats sont tels qu'il faut avoir essayé la technique pour y croire.

L'information Dentaire,
13 mars 1952.





—Photo from Canadian Government Travel Bureau

SKIERS ON A PRACTICE SLOPE ENJOY WINTER SUNSHINE IN THE LAURENTIAN MOUNTAINS OF QUEBEC

A Christmas Message

Thoughts of Christmas never fail to bring to mind the refrain of the angels as they announced to the world that Almighty God had visited His people. "Glory to God in the Highest; and on earth peace to men of good will" was the song of joy and hope that broke the stillness of the greatest of all nights.

But today "peace on earth" is perilously close to becoming an empty phrase. This Christmas more than ever before we must turn to Almighty God and pray for His peace which is the foundation of the happiness and wellbeing of the world.

—Very Reverend James T. Hussey, S.J.





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The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 18

TORONTO, DECEMBER, 1952

No. 12

Dental Practice 1952*

by THOMAS R. MARSHALL, D.D.S., F.A.C.D., Toronto, Ontario

THERE is a thought suggested in a family scene, familiar to most of us. A young lad is sitting on the floor with an old alarm clock, taking it apart to see what makes it tick; later he proceeds to put it together again. After a time you hear him sigh—"I have too many pieces." He is confused with having more parts than places to put them; he has arrived at the point where he is ready to leave the whole mess on the floor and seek other adventure. This little scene depicts a situation in which many of us find ourselves; our problems today in dental practice are confusing, if we do not give some thought to the trend in dental science.

About three years ago I was interested in a customer's letter from the Royal Bank. It was dated September 1949, and read in part as follows; "The problem today is a feeling of being pushed. We cannot put a finger, with certainty, on anything that is causing it; nor can we point a finger confidently at the goal towards which we are being pushed. We just keep rushing along in a confused state of never having time to do the things that are pressing to be done. Twentieth century living keeps us guessing. The trouble is that we are midway in transition from an age that was based on the assumption of permanence, into one where the only certainty is change."

Our subject implies a consideration of some aspects of practice management today. A time when a change of emphasis in dental care is influencing the public concept of dental practice. Prevention and control of dental diseases are the objectives of dental service.

Dental practice is a dynamic procedure. It is influenced by professional advancement, attitude of the people, the times, and most of all by the dentist himself. Reflection over a period of 25 years will bring into focus some of the trends in dental service resulting from these influences. Such stock-taking, considered thoughtfully, should enable us to orientate our thinking and our energies to better advantage to both our patients and ourselves.

Twenty-five years ago, Preventive Dentistry, was something we talked about but did very little. It was an accepted theory in those days, as it is now, that dental caries resulted from the action of certain bacteria on fermentable carbohydrates about the teeth. Patients were admonished not to eat sweets, and there it ended. People went to their dentist when they had a toothache, or were sent by their physician to have their teeth out to cure their rheumatism. It was the focal infection era, when a major part of dental practice was extraction and removable prosthesis.

*Presented before Maritime Dental Association of Fredericton, N.B., July, 1952.

In the thirties, the concept of dental practice began to change. People did not always get relief from their chronic ailments when they had their teeth out. Demand for services began to dry up. Incomes were drastically curtailed and people did not bother much about their teeth unless they had pain. A few school dental clinics were organized on the basis of giving relief from pain, which in effect were mostly to provide extraction service.

It was in this setting that dental public health education, inspired by that great Canadian pioneer, Dr. Harry S. Thomson, began to catch the ear of both the public and the profession. Dentistry for children was a field of service that had never been seriously explored. Why not maintenance of dental health, and thus control of dental diseases? This was practical prevention of the ravages and disfigurement of neglected dental diseases. Thus a new approach to dental practice was born, which was to spark a tremendous surge forward in dental science, dental education and in the practice of health dentistry.

PROFESSIONAL ADVANCEMENT

Perhaps the greatest force for professional advancement in Canada is the Canadian Dental Association. It was re-vitalized in the middle thirties and has become progressively more active each year, expanding its scope of leadership and service in the profession. It has been, and is directed by capable officers who are acutely aware of the needs of the Canadian people and of the responsibilities of the profession. The Association has done much to further a more intensive research program; it has promoted a changed emphasis in dental education and a raising of standards throughout our dental schools and it has encouraged the promotion of dental public health education all across the country.

Supplementing and giving effect to this leadership, our dental schools have set up facilities for graduate studies. As a part of this graduate

program, short courses of instruction are available, whereby the practising dentist may familiarize himself with present-day teaching and methods of treatment. Such courses have included dentistry for children, orthodontics, radiography, endodontics, periodontics, operative dentistry in all its applications, and so forth. The emphasis is on conservative dentistry and the preservation of the natural dentition in health and good function.

Dental society programs reflect the interest of the dentist and therefore his problems in practice. Subjects of the most interest naturally are major-ed to attract good attendance at the meetings. For many years exodontia and prosthetics were highlighted on every program. Today other topics in dental science are crowding for popularity, such as caries control, dentistry for children, periodontics, operative dentistry, and so forth; not that surgery and prosthetic service are less important or that we have learned all there is to know about them, but the new interest does indicate a change in the professional emphasis and concept of dental practice. It indicates advancement towards the positive goal of maintaining health of the natural teeth rather than the negative aspect of replacing them when they have been lost through disease.

PUBLIC ATTITUDE

A patient of mine said to me not long ago, "Doctor, I started too late to care for my teeth. My mother used to think that as long as my teeth did not ache, they were all right." That was the common public attitude twenty years ago and it still is with some people—those who have not learned to value their teeth. My patient continued—"You can be sure I will not make mother's mistake; I want my children to have regular dental care to keep their teeth in good health."

The idea of maintaining the teeth in health from early childhood has great appeal as people understand its

benefits. It is a logical procedure which intercepts dental disease at its earliest manifestation and limits its destructive processes. Children particularly benefit from regular periodic care, but the principle of dental health protection applies throughout life.

People are very interested in good teeth. This is demonstrated by our press, which is anxious to carry stories about the care of the teeth. Why?—because they have a wide reader interest. Contrast this with news references of the past which dubbed the dentist as a tooth puller or a tooth carpenter and featured him in cartoons as a torturer of mankind.

Today the attitude of people is growing progressively favourable to this new concept of dental care; some are even demanding it by preferring to patronize the dentist willing to give this service. It is clearly the pattern of dental practice for the future, and it is raising the status of the dentist as a member in the family of health professions.

THE TIMES

Business conditions influence the trend of dental practice. Dr. M. H. Garvin reported a study, in which he found the volume of dental practice follows the general trend of business. This has been substantiated, at least in part, during the last two decades; in the latter, business prosperity has been high, and dentists very busy; in the thirties, dentists were not as busy as many of them would like to have been.

It was in the thirties that dental public health activity really became popular in the profession; it was a means of interesting people in their teeth. Dentistry for children gained in importance. Child patients attended the dentist in increasing numbers, although at first they were served half-heartedly. The reason for this was mainly twofold; the dentists of the day were inadequately trained in dental care for children and the accustomed fees for children's dental service were

unprofitable. The child's carious teeth were stopped up with cement, copper amalgam or extracted because they were temporary teeth. The result of such practice was unprofitable to all concerned. In spite of this dental public health education was continued; it emphasized dental care at regular intervals, to prevent the ravages of dental disease. "Save the children's teeth in health until it is time for their normal loss," was the admonition, and thus a demand for a new kind of dental service was stimulated, and dental practice took on a new perspective. This occurred at a time when dentists were not busy.

The new idea was not destined to flourish without interruption. The Great War came along, and with it greatly increased incomes accompanied by a depleted dental personnel. There was a vast accumulation of dental treatment need in the pre-war period, and dentists were baffled with the problem of taking care of all who came. When the war ended conditions did not improve. The Federal Government provided free dental rehabilitation for discharged veterans in the amount of some 30 million dollars. This increased demand for dental service more than ever. Add to this the dental need arising from Canada's increase in population of some two million people in the last census period, without corresponding increase in the number of dentists.

These conditions mitigated against the growth of the new concept of dental care. Dentists drifted back into former habits of practice, when dental service for children was performed mostly as a favour for parents. There was so much urgent need for dentistry, resulting from long neglect, that dentists did not have time for patients not in serious trouble. Moreover, they preferred prosthetic service because it was more profitable, and patients had the money to pay for it.

There is another picture. Everyone today, and this includes the dentist and his family, are conscious of the high

cost of living, or putting it another way, how little the dollar will buy.

	1939	Today
Rent (a six room house)	\$50.00	\$100.00 plus
To buy	\$7000.00	\$14000.00 plus
Clothes have doubled in price		
Bread	10c	18c
Butter	40c	63c
Milk	12c	22c
Sirloin of beef	40c	\$1.00
Coffee	60c	94c to \$1.10
Ladies shoes	\$10.00-	\$15.00-\$20.00
Car	\$1200.00	\$2800.00

Then in the dental office, rents, supplies and auxiliary services are doubled or more. It is pretty much agreed that the dollar today will buy about the same as fifty cents in 1939. Indeed, the Hon. Mr. McCann is reported to have stated in parliament in the past year, that the purchasing value of today's dollar is equivalent to about forty cents back in 1936. Couple with this an income tax today which is six times what it was 15 years ago.

These conditions of increased cost of living, increased cost of doing business, and increased income tax, have not been considered in relation to the income returns of the dental practice. The trouble is that we are professional people, who are schooled and concerned mostly with dentistry for our patients. Of late years there has been a crowding of people seeking our services, with never-ending demands on our time and energies, such that we are constantly fatigued both physically and mentally. We have no appetite to think of our practice as a business. Couple with this the ever-recurring headlines of our press, reporting unsettled conditions about us and throughout the world. Such an atmosphere of fatigue and concern leads to loss of morale and unsettled peace of mind. It disturbs our professional idealism, which in turn can be reflected in a deterioration of our services as well as our health and happiness. We become discouraged and confused — a little like the small boy with the pieces of the alarm clock on the floor. There

is a temptation to forget our professional idealism and to follow the lines of least resistance and give precedence to the more remunerative types of dental service, and let it go at that.

It is well to remind ourselves of such obvious influences and their effect on our patients and our practice. Are we keeping ourselves abreast of the advancement in dental science, and applying this knowledge in our practice? People want health more than anything else in the world, really. Our professional leaders are sparing no effort to promote a program of dental health protection, as they talk with politicians and health officials, in these days when socialized health services are in the minds of so many people. Are we as dentists giving a service we are trained to perform and only dentists are trained to perform—practising good dentistry, applying preventive and operative measures, not only for caries control, but in relation to the health of the supporting tissues of the teeth? All our fine restorative dentistry is a failure, if gingival and periodontal disease is neglected. In adult life this phase of dentistry is of paramount importance, yet how often it is neglected almost entirely.

Let me repeat—Are we as dentists giving a service that only dentists are trained to perform? In times like these, with more need for dentistry than there are dentists to provide it, what approach is the average general practitioner making to the problem? Is it prevention and control measures to protect dental health, beginning with children or the adult whose mouth health has been restored? Yes, it is by an increasing number of dentists; but there are too many others more interested in extractions and the patient's prosthetic needs. So much so that some of them might well be considered retail outlets for the dental laboratory, and that is no reflection on the dental laboratory. In this connection, it is amazing how many people have the impression that the dentist employs a technician to make artificial appliances

for him. It is implied that all the dentist does is to take the impression and place the new teeth in the patient's mouth, and this is not far from the truth in some cases. These same people believe too, that the technician's charges are a fraction of the dentist's fee. This leads to the further thought—"would it take five years in a dental school to train the technician to take the impression, if that is all the dentist is required to do?" Each can answer for himself. Every provincial legal body across Canada has its problems in controlling illegal practice of prosthetic dentistry. Obviously prosthetic services are a necessary part of dental treatment and there will always be a need for them in restoring health and function in the mouths of patients who have lost their teeth. Obviously too, the dentist must make use of auxiliary personnel wherever he can, to conserve his time, to enable him to serve more people. But undue emphasis in prosthetic services, with the neglect of other needed services for mouth health dentistry — these dental services that only a dentist can perform—will bring unfortunate repercussions for all concerned, the public and the profession alike. Prosthetic service can be a boon to mankind when it is practised as a part of good dental service, but it is only a part of mouth health dental care.

Why would a dentist prefer to have a high proportion of prosthetic services in his practice? The answer is, because it brings a higher income and thus raises the income level of his practice. The inference is that fees for conservative dentistry in most practices are inadequate; the more important dental health promoting services do not pay their way and must be carried by the fees for prosthetic appliances. When the boom days are over, and people begin postponing larger expenditures (and there is evidence that some are doing just that now) what will happen to the so-called prosthetic practice?

Such are some of the conditions and tendencies of the times that we should

consider as we seek to establish a profitable and stabilized practice.

THE DENTIST AND HIS PRACTICE

So far we have been discussing the general environment in which we practise—professional advancement, public attitude and certain influences of the times. That is the picture of dental practice perspective. It remains for us to study how the dentist can manage his practice to obtain the objectives he most desires.

What are the objectives in dental practice as they relate to our own welfare? Health, happiness and independence come high in our fundamental yearnings. Health and happiness are often taken for granted until we lose one—and when we lose one, we are well on our way to losing the other. Maintenance of optimum health and happiness is of primary importance in all ages. Health of the body and mind is promoted through regulating our conduct—high idealism and hard work spiced with recreation. It is important to live each day to full enjoyment, not extravagantly, but moderately, as becomes a professional person. "The secret of happiness," writes J. M. Barrie, "is not doing the things you like, but in liking the things you do." "The best successes in business and professional life," says Dr. E. R. Swank, "are those who happily combine hobbies and work, and have a good time doing it."

Longevity in dentistry means more today than it ever did, that the dentist remain in active practice. Dentistry was never a vocation young people chose to get rich and the situation has not changed. Dentists, then, should remove all thoughts of retiring from their minds and cease struggling to accumulate money to that end. Saving money to retire and do the things we always have wanted to do, so often ends up with never doing them. Either we do not live long enough, or if we do, we have lost the zest and desire for doing them.

Independence is an asset to health

and happiness. Independence to enjoy the amenities of life moderately; material resources to provide for our need and reasonable desires; sufficient income to provide against illness, and to create such an estate as will protect our families and some income to supplement our earning power in declining years.

What are the resources to secure this independence? We have time and knowledge to expend in service to our patient for fees. To be sure there are other satisfactions to be gained, such as pride of achievement, excellence in workmanship, service to humanity, contributing to professional advancement, and so forth; but all these should be complementary to, and compatible with securing an adequate income, which increases with our knowledge, experience, skill, and capacity.

Fundamental to obtaining our objectives from practice, is an adequate fee system. The public are asking for services to prevent and control dental diseases. What they are really asking for is dentistry for health—and that is good. For too long, dentists have been talking about fillings, crowns, bridges, inlays and dentures with a special brand of teeth, at so much per, instead of dentistry for health. In so doing, they have been reducing the level of dentistry to merchandise. Value in dental service is dependent on the dentist's own concept and is conveyed to the patient by education—or perhaps it is better to say, by the impression he creates.

The question of dental fees is a personal one, yet with the changing concept of practice and this era of inflation, reappraisal is a must, to make dentistry attractive as a vocation. Fee determination in the past has been largely a matter of custom. In many cases it was something we guessed at, and hoped for the best. The businessman would approach fee computation with a knowledge of costs, and add his profit; that seems like a logical approach. Our income tax laws compel us

to keep such records, but how many of us use the information for our benefit?

BASIC PRACTICE COSTS INCLUDE

1. Office rent including heating, water, and electric supply.
2. Maintenance of office equipment and furnishings, including depreciation on such capital items.
3. Dental nurse and other assistance.
4. Dental supplies, laundry, stationery, periodicals, drugs, and sundry items.
5. Dental Association and other memberships; licentiate fees, and expenses to our national convention and one provincial meeting.
6. Charity donations.

Indeed all office expenses which are incurred to enable us to conduct our practice should be included, with the exception of gold, artificial teeth, and technicians' charges. These items should not be charged as general office costs of service, but charged to patients receiving such services.

To apply these basic costs of doing business, the annual total is broken down on a time basis. The principle of using time as a guide in fee determination has long been accepted. It has been computed, that omitting Sundays, holidays, vacation, and time lost for other reasons, there are 250 business days in each year. The dentist averages six chair hours each day, or 1500 hours in the year to earn his income. From this data, the average basic cost per hour can be determined and probable income projected. It will be readily understood why gold, artificial teeth, and technician's charges, are not included in the computations, because it would be unfair in such services as dentistry for children, prophylaxis, periodontal care, to include them in basic costs of office operation.

FEE DETERMINATION

Using time as a basis for fee determination, there are four factors which enter into calculations—capital outlay, cost of operating practice, profit and salary.

CAPITAL OUTLAY

Capital investments in securing education or dental knowledge, and office equipment must be amortized. Capital expenditure in both instances is more today than 10 years ago, and very much more than 25 years ago. Nevertheless, the principle is the same, and can be applied as the individual case indicates. Today a student spends five years on his course, and allowing \$1000.00 per year for living expenses, clothes, etc. he spends \$5000.00; his fees are a further \$3000.00; his dental equipment to set up practice on graduation, is another \$4000.00, making a total of \$12,000.00. This capital expenditure or invested fund, should be returned to the investor in annual instalments over a period of twenty years, together with interest. As the annual instalments reduce the capital sum each year, suppose we strike an arbitrary interest rate of 2% per annum on the original sum. The annual instalment return of capital would then amount to \$600.00 principal plus \$240.00 interest—totaling \$840.00.

This \$840.00 should be deducted from the net practice income, before salary, in monthly instalments of \$70.00 and placed in an investment account.

PRACTICE OPERATING COSTS

A survey of dental incomes across Canada, by the Dominion Bureau of Statistics for the years 1941 to 1944, showed the average cost of practice as 49% of gross proceeds. This of course, includes precious metals, artificial teeth and technician's charges. In a family practice these items might run as high as $\frac{1}{4}$ to $\frac{1}{3}$ of the total expenses, thus reducing the basic costs of office operation to about $37\frac{1}{2}\%$ of gross. As pointed out previously, costs vary with the individual practice, and each dentist should ascertain his own particular figures.

PRACTICE PROFIT AND DENTIST'S SALARY

The profit of a practice is usually considered to be the dentist's salary or

income; but is it? A moment ago we suggested provision for returning a capital investment, arbitrarily set at \$12,000.00 with interest at 2% per annum, over a period of 20 years. This to be returned at the rate of \$70.00 per month. This is a return of borrowed money and not salary.

Again in these days of high income tax, we could provide for its payment out of the net proceeds of the practice. According to a report by the Minister of National Revenue, and published in the current January issue of this Journal, 2930 dentists had an average net income of \$5748.00, on which they paid an average of \$681.00 income tax for the year 1950. Therefore, by deduction, the average net salary of the dentists paying income tax, was approximately \$100.00 per week. I am suggesting the dentist should set aside an appropriate portion of his net income each month, to be available for tax payment when due.

A question each dentist must decide for himself is:—should he be content with whatever money is left after all his obligations are paid, or should he prepare a budget of needed salary, and set out to achieve an objective? If the latter, then consideration will have to be given to:—

1. Rent or purchase of a home and its upkeep.
2. Day-to-day living expenses and vacation.
3. Provision against illness and loss of income.
4. Education of children.
5. Provision for protection of dependants through life insurance.
6. Provision for an annuity to supplement income in years of declining earning power.
7. Provision for those less essential yet very desirable amenities for pleasant and interesting living.

When we consider that the cost of living has doubled in the past ten years, as indicated by the reduced buying power of the dollar, a weekly net salary of \$100.00 seems like little enough salary for a professional per-

son in these days. For purpose of illustration let us assume then a minimum net salary objective of \$100.00 a week.

52 weeks @ \$100.00 per week	
is	\$5200.00
Provision for capital return ...	840.00
Estimated provision for income tax	817.00
Total practice profit	\$6857.00

Money provided for return of capital and for payment of income tax in the amount of \$1657.00 should be placed in a separate bank account each month in the amount of \$138.00.

Using the Bureau of Statistics survey figures, showing the relation of net practice income to practice expenses as 51 to 49; or for ease in calculation 50:50, then, to produce \$6857.00 net, the expenses would be a similar amount, thus requiring a gross in round figures of \$13,700.00. The daily average gross objective, to produce an annual gross practice of \$13,700.00, would be approximately \$55.00 per day, assuming 250 office days in the year. Following this a little farther,—The Bureau of Statistics expense figure includes the cost of gold, artificial teeth, and technician's charges. Suppose this accounts for 25% of office expense, or 12½% of gross practice,—then our \$55.00 daily objective would be reduced by 12½% to \$48.00. Assuming further that the average is six chair hours each day, the minimum fee for general dentistry becomes \$8.00 per hour, to meet a salary objective of \$100.00 per week.

Look at this another way. If we have 1500 chair hours in our office each year, at an average fee of \$8.00 per hour, we should gross \$12,000.00. This figure of \$12,000.00 would be 87½% of gross practice, because the cost of gold, artificial teeth, and technician's fees have not been included. Gross income including these items would be approximately \$13,700.00. Divide this in the ratio of 50:50 and our net practice income is \$6850.00.

To illustrate further, suppose we increase our hourly fee to \$10.00 per hour instead of \$8.00; what weekly

salary would be expected from this increase?

1500 hours @ \$10.00		
per hour		\$15000.00
Deduct basic practice costs of 37½%		5625.00
Net practice proceeds	\$ 9475.00	
Capital return	\$ 840.00	
Provision for income tax	\$1400.00	
(married and two children)		
Profit provision	\$2240.00	
Annual salary expected	\$7135.00	
Weekly salary expected	\$7135.00	\$137.00+

52

Thus it is shown that a small increase in the basic hourly rate could make considerable improvement in salary return.

These figures must be adjusted for our own salary objective, and according to our own practice costs. It is the principle of minimum hourly fee computation and its value as a guide in fee determination that I wish to establish for all chairside practice procedures. This hourly rate is subject to adjustment. We will agree, I am sure, that fees should be taxed on the value of the service to the patient. The hourly schedule is only a guide to enable us to pay ourselves a net weekly salary of a given amount, for our living expenses and our savings.

In illustration of factors entering into fee determination, the following suggestions are offered:—

Services involving the hazards of more than average risk or difficulty, should command adjustment of the fee upwards. The same is true of all services for the higher strata of society and those people who are prominent in business and public life. They expect the best in service and satisfaction, and their patronage calls for extra effort. If we fail to provide results desired there is a greater loss in professional reputation and prestige to the dentist concerned.

Again, the dentist who, by planning his work, and by arranging longer ap-

pointments, is able to accomplish more service in a given time, is entitled to a higher fee in accordance with the amount of service performed. It is important to observe here that the longer appointments are conducive to higher production of service, with greater ease to the operator.

Further, the dentist who possesses greater skill and ability, gained perhaps through training or experience, or both, and who is able to produce more and better quality dentistry, is entitled to an increase over the minimum hourly fee. On the other hand, a slow operator, whether because of inexperience or other reasons, who is unable to accomplish an average amount of service of good quality within a given time, must expect to adjust his fees accordingly. In such cases the salary objective must be lowered until such time as the dentist is capable of increasing his production capacity.

It is conceivable that a young dentist, beginning his practice, might over-estimate his capacity and set out to establish a fee schedule on an hourly basis alone—he aspires to fees at an hourly rate without regard to service rendered. This could bring disappointment. Patients are attracted to the younger dentist because his work should be up to date, and perhaps his fees a little lower. Personal friends recommend him, even busy colleagues send him patients. If his fees are high in terms of service rendered and not justified to the patient, some may not return for repeat services. Time, therefore, is not the paramount factor in fee determination; its value lies in its usefulness as a guide to the day's objective. Fees should always be taxed on service rendered. The time factor involved should indicate whether the fee is profitable.

Of course it is one thing to determine what is an ideal fee in theory, and quite another to apply it—that is, have our patients accept it as good value and fair. Let me give you an illustration.

In a program of dental health care, implemented by regular periodic attention, there is one operation we will perform very often. It is prophylaxis, the meticulous removal of all calculus deposits and stains on the teeth, including smoothing of the marginal overhanging of fillings, when present. This service is tedious, arduous work, and in many practices unremunerative. The difficulty is, we general practitioners do not realize its value to the patient, and think with the patient—it's only cleaning teeth. A few years ago I took a short course in periodontics and learned enough about the subject to appreciate the value of a good prophylaxis. I went back to the office and raised my fee from \$3.00 to \$5.00 for a half hour service. Oh yes, Mrs. Jones suggested to me, "Doctor, isn't \$5.00 a lot for just cleaning teeth?" "Yes, Mrs. Jones, I'm glad you asked me that question. For some time I have been trying to decide whether I should discontinue this prophylactic service entirely, because it has been unprofitable to me and I could spend my time to better personal advantage. However, I decided to continue it in the interests of my patients, with even more care than ever before, because I believe a good prophylaxis is of utmost importance to protecting the health of your teeth. I want to prolong the life of your teeth, in health and comfort. As for my fee, you will agree I think, that an increase from \$3.00 to \$5.00 or even \$6.00 is quite within reason, when everything else you buy, and I buy, has doubled in cost in the last ten years." It is of first importance that we dentists convince ourselves of the value of our services; our patients only follow where we lead.

Then again, not long ago I had a young woman in my office, who has been a regular patient for many years. She brought her four-year old daughter along too, prearranged, of course. Examination disclosed both child and mother needed service, which was completed in due course. The amount

of each happened to be about the same, as I spent about the same time on each. On concluding our service she asked for her account which was given separately; as I mentioned the fee for little Mary, I noticed a little surprise reaction, so I added "Easier than you expected?" She replied; "Mine is fine, Doctor, but isn't that a lot for Mary?" I answered, "I'm glad to know how you feel, and I would like to explain our charges to you. You realize Mary's work is even more important than yours, because she has all her life ahead of her; further, dental service for children is more exacting than for adults. You also realize I have given her as much time as I have you. Then again as you know, children are less co-operative and have to be humoured as I work, so that when I am finished I know that I have had a session, and Mary is a grand little girl". Mother replied; "Thank you Doctor, I realize this but it did not register."

If the dentist is expected to support the present trend of dental practice, towards prevention and control of dental disease, then the services associated with the trend must yield an attractive remuneration. They must be profitable in themselves; the dentist should not need a high percentage of prosthetic services, at fees that are proportionately high, to make his practice profitable.

CONCLUSIONS

The contention submitted in this discussion has been directed towards practice problems of today: *First*, towards recognizing the changing trend of dental practice promoted by our professional leaders, and its acceptance by the public in increasing numbers. *Second*: towards recognizing

the effect of limited dentist personnel to cope with the need of dental services and this adverse influence on practising those measures necessary for prevention and control of dental diseases, which promote a healthy mouth. *Third*: towards recognizing the change in the purchasing value of the fee dollar and all its implications. *Fourth*: towards the necessity for re-appraising the value of all our services, to the end of determining fees that are profitable, that invite the performance of a conscientious and complete dental service, and that are fair to the dentist as well as the patient. I feel it is most important to correct a tendency to raise the income level of a practice through prosthetic fees, where the schedule of fees for basic dental health services are too low. It is conducive to preference for prosthetic services and consequent neglect of maintained dental health care in busy practices. It is my view that prosthetic fees should be determined similar to all fees; the time factor considered with skill, responsibility and results achieved, plus material and technical charges at a profit that is fair.

And finally, in these days of tendencies towards socialized health services, health care will be directed and employed toward the maintenance of health by all health personnel. The dentist will be no exception. I would like to emphasize therefore, the importance of the dentist constantly directing his efforts in practice to providing those services for which he is trained and he alone can perform; and further, that our patients be educated to the value of these services in terms of fee compensation that is fair to the dentist as well as in health value to themselves.

He that respects himself is safe from others; he wears a coat of mail that none can pierce.—Longfellow.

"Men are never so likely to settle a question rightly as when they discuss it freely."
—Macaulay.

Annual Report of the Health Insurance Study Committee of the B.C. Dental Association*

SOCIALIZATION OF DENTISTRY (SECTION A)

THE trend of thinking throughout Canada and the rest of the world toward socialization of dentistry and medicine is becoming more pronounced year by year.

It is well known that our present Federal Government has had under serious consideration for several years some form of Health Insurance. When the government will take the actual step into the field of Health Insurance is a matter of conjecture. Some feel the day is not far off. If and when that does occur, the dental profession of Canada would need to be prepared with a sound workable scheme to present to the government. Our primary duty would be to see that the program set in operation would give the people of Canada the highest standard of dentistry possible.

We are fortunate that our interests in this respect are being taken care of by a most competent committee of the Canadian Dental Association, under the direction of Dr. Harvey Reid. This committee has been working for some years and has outlined a most comprehensive plan of Health Insurance which was reported in the latest issue of the Proceedings of the Canadian Dental Association.

Recently, the Canadian Dental Association requested that a trial of this plan be instituted in British Columbia by your Association, and in other Provinces in Canada.

Whether or not it would be wise to institute any form of Health Insurance, even on a trial basis, before the government makes the actual demand for it, is open to serious question by this committee. By commencing even a trial plan, we might well be insert-

ing the thin edge of the wedge. This could lead to a great enough demand by the unenlightened public to start an avalanche of socialization of dentistry by the government over which we would soon lose control.

Health Insurance schemes in various forms have been in operation for some years in many countries of the world, notably New Zealand, Great Britain and other European countries.

Your committee has been studying these various forms of Health Insurance and has the following comments to make.

It is evident from the reports of those who have made a detailed study by actual observation in the countries where Health Insurance is in operation, that the people, on the whole, have not benefited by the scheme. In reality, they have suffered, because of the tremendous lowering of the standards of dentistry. The cost of administering these Health Insurance programs, has been out of all proportion to the benefits. However it would appear, that in most instances, the dental profession had not suffered financially. This would seem to be only a temporary situation. As the standards of dentistry decline, it would seem obvious that the financial returns of the profession, along with the prestige and position of esteem in the community, would also decline.

METHODS OF PAYMENT

The biggest stumbling block to any feasible form of Health Insurance, would seem to be the method of payment to the profession for work done. No one has yet devised a means by which professional services can be equitably paid for in a Health Insurance scheme, without tending to low-

*Presented at the Annual Meeting of the British Columbia Dental Association at Vancouver, June, 1952.

er the standard and raise the cost of dentistry.

The present free enterprise competitive system, whereby the individual dentist must stand or fall on his own initiative and must maintain a relative professional standard as set by his confrères, is still the most desirable system for us all.

FREE ENTERPRISE

Without the spirit of competition as we have it in our free enterprise system today, there would be little or no progress in the advancement of the science of dentistry. Science, because of competition, has made great strides in the advancement of our noble profession in the past years, under our present system. It would be a catastrophe if the wheels of progress were stopped, because the people of this country were to allow the malignancy of socialism with its so-called security, to replace the initiative and self-reliance so necessary under free enterprise.

Unless we are to fall victims of this pseudo-Utopian socialization of our profession, we must be prepared to serve the public with better dentistry, and dentistry for a greater percentage of the people than we do at present. We must embark on a sound program of education and enlightenment of the general public to the need of caring for their oral health. True, this will increase the demands upon a presently overworked and understaffed profession. That must be rectified by a concerted effort on our part to establish more dental schools and encourage more young men to enter the field of dentistry.

Although lack of education and appreciation of the need of dental services is one of the main reasons such a small percentage of the population is at present receiving adequate dental care, the so-called high cost of dentistry is also a major deterrent to

most of the people not receiving treatment. This factor is probably true to a great extent for those in the low income bracket. However, a quick review of the facts and figures as published by the Dominion Bureau of Statistics, would reveal the astounding sums of money that the population spend each year on luxury items, such as liquor, tobacco, cosmetics and automobiles, to mention only a few, as compared to that spent on all health services combined. Thus, to openly state that the majority of people not receiving adequate dental care is due to the fact they cannot afford dentistry, is a fallacy that we should rectify, even in the minds of our own profession. The tremendous advertising campaigns of the various luxury manufacturers are draining the population of every possible dollar, even to the neglect of buying proper food stuffs. Certainly because of the lack of adequate education on the part of the health professions, people have not subscribed to these vital needs as they have to the luxuries.

TIME PAYMENT (SECTION B*)

There is a great trend these days for people to buy on time-payment plans. All of us in the professions have experienced an increase in the public demand to obtain our services on a time-payment basis.

With this in view, and with the need of an alternative to a Health Insurance scheme, this committee has been studying a loan plan now in operation in the States of California and Washington, and considered very successful by the dental associations of those states.

Briefly, the system in British Columbia could be worked as follows:

The B. C. Dental Association would sponsor a loan plan whereby the patient could apply for a loan from the bank. This loan would be payable directly by the bank to the dentist. A

*Section B comprising the last half of this report was passed by the B.C. Association with the proviso that a special committee be set up, separate from the Health Insurance Studies Committee, to study this plan and that the Committee be empowered to proceed with it if it was found to be desirable.

good credit rating would be necessary but the patient would not be required to supply the usual collateral.

Five per cent (5%) would be deducted from the loan which would be placed in a fund to cover possible losses. This fund would be in the name of the B.C. Dental Association.

When the fund amounted to 25 per cent of the outstanding loans, the amount deductible from the loans would decrease to 4 per cent, then 3 per cent and so on. The loans would be repayable by the patient to the bank over a period of 18 months with interest at approximately 6 per cent per annum.

Over a period of many years, a large percentage of patients have become accustomed to paying for their dental services on a time-payment basis, interest free. One of the privileges of our free enterprise system is that we may charge a fee which we feel is just and fair regardless of the so-called going rate. It is also our privilege to make our own payment arrangements with our patients peculiar to our own personal choice. This would not be the case with a Health Insurance plan. However, we could eliminate a good deal of this interest-free borrowing by our patients, by setting up a loan scheme as outlined above.

A loan system, sponsored by the B. C. Dental Association, would be a great benefit to both the patient and the dentist.

1. Patients would be able to have all their work completed as required and not be indebted to the dentist beyond their means.

2. Patients would more readily have the work done as required, rather than put it off in order to save up the money. Too often they turn around and buy something else with the subsequent detriment to their health.

3. Loaning money is the business of banks, not of dentists.

4. Patients would more readily apply for a loan in a system sponsored by the Dental Association, rather than directly from the bank. Many people shy away from bank loans.

5. If the banks were to refuse the patient a loan under this system for any reason, it would be folly for the dentist to assume the indebtedness himself. Thus a good many bad debts could be prevented by having the patient apply for a loan at the outset.

6. A loan system of this nature would in no way change the present dentist-patient relationship of our free enterprise system. The dentist could maintain his own standard of dentistry with his own schedule of fees.

7. Patients could subscribe more readily to the highly specialized aspects of dentistry, such as gold foil fillings, bridges, cast dentures, orthodontics and periodontics, if they could pay for these on a time-payment basis.

8. By making dentistry easier to pay for, we might well forestall the advent of Health Insurance schemes forever and eliminate the fear of socializing and degrading our profession.

Many other factors could be mentioned in favour of a scheme of this nature, and much work would be required to finalize the details. However, this much is presented to you, so that you may give your careful consideration to this matter and direct your Executive according to your wishes.

Respectfully submitted

Joseph H. Merrell

Lloyd Chapman

Richard Cline

Donald B. McDonald, Secretary

William R. Scott, Chairman

Dr. George H. Gallup and other researchers have found that on any important national or international issue, about 30 per cent of American adults have a general idea of the problem and are familiar with a few points about it. About 45 per cent of the population has heard of the subject, but knows nothing about it. The remaining quarter has never heard of the matter at all.—Jour. Am. College of Dentists.

16th Meeting of the N.R.C. Associate Committee on Dental Research

by S. J. COOK,* Ottawa, Ontario

TWICE each year, the Associate Committee on Dental Research of the National Research Council meets in Ottawa. The mid-year meeting was held 29 September 1952, with twenty members taking part in the day-long discussion of Committee projects including progress reports from a dozen grantees.

The *Bibliography on Caries Research* prepared by Dean J. Stanley Bagnall and published by the Committee has been selected by the American College of Dentists for distribution this year as a memorial volume, in honour of their deceased members. Copies, suitably inscribed, will be presented to the dental libraries of each deceased member's Alma Mater.

Members learned with interest, too, that one of the Committee's grantees, Dr. Robert E. Moyers, professor and head of the department of orthodontics at Toronto, had recently been honoured by the Greek Government "for services rendered to Greece during the German occupation of World War II". He was awarded the Golden Cross of Phoenix for his liaison work and the establishment of the first health unit for the "Résistance".

Appointment of Dr. Edouard Pagé of the Faculty of Medicine, Laval University, Quebec, to be a member of the Committee was announced. Dr. Pagé succeeds Dr. J. B. Collip of London, Ont., and will serve for three years. Members reappointed for a further term of three years were: Dr. J. Stanley Bagnall, Halifax, N.S., Dr. A. W. Ham, Toronto, Ont., and Dr. R. A. McDougall of Victoria, B.C.

Fellowships in dental research are offered each year by the Committee to provide advanced training and ex-

perience in research in one of the sciences basic to dentistry. Last year two awards were made, but this year no applications were received. The fellowships range in value from \$1500 for those who have had one year's graduate training to \$2500 for those who have had experience in research work.

Prior to this meeting, Committee grants-in-aid had been made to 43 research workers. This year's awards amounting to more than \$20,000 included 12 grants.

New applications, approved by the Committee at the September meeting were:—

DR 44	Grantee	Dr. Arthur Harry Craven, Lecturer in Orthodontics, McGill University Dental School, Montreal, Que.
	Subject	The growth in width of the face and head of the Ma- caque monkey as revealed by vital staining.
	Amount	\$600
DR 45	Grantee	Dr. R. E. Moyers, Professor and Head, Department of Orthodontics, Faculty of Dentistry, University of Toronto, Toronto, Ont.
	Subject	Study of the incidence of malocclusion.
	Amount	\$1700
DR 46	Grantee	Dr. R. E. Moyers
	Subject	An analysis of treated ortho- dontic cases.
	Amount	\$520
DR 47	Grantee	Dr. H. A. Hunter, Associate Professor of Chemistry, University of Toronto, Toronto, Ont.
	Subject	The pathological character- istics of experimental fuso- spirochetal infections.
	Amount	\$1200

The Committee has a list of research projects suggested by its members, and this month added the following item, submitted by Dr. M. H.

*Secretary of the Associate Committee on Dental Research of the National Research Council of Canada.

Garvin: "To test adhesive qualities of acrylic filling material to teeth structure."

It was recommended that the Committee's list of proposed research studies be brought to the attention of the Deans of Dental Schools, in the hope

that some of the subjects would catch the attention of research workers looking for new fields of work.

The next meeting of the Committee will be held in Ottawa, 2-3 March, 1953.

October 10, 1952.

The Need for Scholarships in Dentistry

by J. M. SHELDON, D.D.S., Toronto, Ontario

Prepared for the Endowments Procurement Committee of the Faculty of Dentistry—applicable to all dental colleges.

THE Royal Commission, which submitted the "Massey Report" to the Canadian Government on matters related to arts, science and culture in Canada, made the following statement:

"Canada's future cultural development depends primarily upon the availability of higher education for her young people; the more students with ability who receive such education, the wider will be the scope and variety of Canada's cultural possibilities."

If this be true in Canada as a whole, it certainly must also pertain to the dental profession. If we are to have enough students with the intelligence and aptitude for post-graduate study, they must be drawn from the undergraduate body, who by the aid of scholarships, bursaries or awards should comprise the ablest men of the profession.

Because of their financial circumstances, however, many of those potentially capable of playing an important role are unable under present conditions to get the necessary education.

Due to the present high cost of living and the soaring costs of higher education, many students who have attained high academic standing in middle school have found it necessary to relinquish their studies and "get a job" to help out with the family budget. Consequently they are unable

to derive the benefits of higher education.

Others, with equally high academic accomplishments, who are on the fringe of the financial requirements needed for a university education, decide that with summer employment, after school jobs, and the possibilities of winning scholarships, they would be able to achieve their goal. These students consult the lists of scholarships available in each Faculty of the University and, in many instances, because of financial necessity they choose the one that offers the greatest possibilities. During their college career these students are in competition with one another to win these scholarships, which not only brings out the best in them, but their enthusiasm and friendly competition is absorbed by the other students and tends to raise the academic standard of the whole undergraduate body.

Due to the lack of substantial scholarships in dental faculties these students, for the most part, are lost to dentistry.

The development of the dental profession from every point of view is dependent upon our ensuring that, through adequate training, our ablest young people are equipped to carry on the tasks which they will be called upon to perform. To attract these highly desirable students, more scholarships, bursaries and awards must be made available in the dental faculties.

The Forum

THE DENTAL HYGIENIST IN THE OFFICE OF THE PRIVATE DENTAL PRACTITIONER

by EVELYN HANNON and MRS. LOUISE L. BURKE, Portland, Oregon

Condensed from *Oregon State D. Jour.*, Sept. 1952

The dental hygienist falls into the category of personnel needed to raise the dentist's productive time. She accomplishes this by relieving him of certain services which she is specifically educated and licensed to perform, namely the scaling and polishing of teeth, the application of sodium fluoride to the surfaces of children's teeth, and the education of patients in matters of better dental health.

What are the principal advantages of this auxiliary service in private practice? 1. A greater number of patients may receive more complete dental care. Established patients can be recalled for preventive care and early treatment without the necessity of curtailing the acceptance of new patients. 2. While the services performed by the hygienist may or may not bring in additional revenue in excess of salary and overhead, a considerably higher income should result from a situation in which all the dentist's fees are derived from restorations, surgery and other dental treatment. The dentist who performs prophylaxes at the prevailing fee is not receiving a fair return for his professional time. If he charges a fee based upon the time spent, many patients will be discouraged from returning periodically for the early and frequent care which is considered to be the most important approach to dental health. If he neglects the prophylaxis, he may have to deal with diseases of the teeth and surrounding structures which might have been prevented. In an office which includes a dental hygienist, prophylaxes may be performed rou-

tinely while the dentist enjoys an income commensurate with his skill, experience and the responsibility he assumes. One comparative study estimates net increase in income of 100 per cent between the one-chair office without a dental hygienist and the two-chair office with a hygienist. Obviously, the large practice has the greatest need of a hygienist, but she will fit into other situations advantageously.

What are the skills of the hygienist? 1. Scale and polish teeth; 2. apply sodium fluoride as a preventive measure; 3. teach dental health; 4. expose, process and mount roentgenograms; 5. chart patient records (but not render clinical diagnosis); 6. organize and maintain an efficient recall system. The dental hygienist cannot nor should she be requested to perform dental services beyond her legal qualifications, such as the administration of anaesthesia.

In a one-chair dental office, a hygienist will probably be of little advantage. The three-chair office is the ideal situation for utilizing the hygienist because none of her contribution is offset by limiting the dentist to one chair. In the two-chair office, however, she can also become a valuable member of the dental team.

The full-time or part-time hygienist in addition to the assistant is the most economically effective arrangement. The full-time hygienist, when not scheduled with a patient can "pinch-hit" for the assistant in many ways, contributing thereby to the smooth operation of the office.

PREVENTION OF DENTAL CARIES

by L. A. J. LISON, M.D., Lic. Sci., University of Brussels, Belgium

Practical conclusions of a report given at the International Dental Congress in July 1952

Topical Application of Fluorides.

The efficacy of topical application of fluoride solutions seems to be reasonably well demonstrated. When applied to children of 6-13 years of age there occurs a reduction of 40 per cent in the incidence of carious lesions. This is, however, an overall figure and applies to large groups of children. Consequently it is not possible to guarantee a favourable result in every individual case. The practitioner must warn the patient of this fact unless he wishes to expose himself to reproach later on. Knutson and Scholtz (1949) report that protection lasts for three years only.

Topical Application of Zinc Ferrocyanide. The sensational results obtained with this method, reduction of caries by 80-90 per cent, refer to too small a number of subjects, and are unfortunately mitigated by the negative results of a recent writer. The study should be continued and the participation of new investigators working with this technique is desirable.

Other Methods. No preventive method involving manipulations which the patient himself can carry out, such as the use of tooth-pastes, mouth-washes, pastilles or chewing-gum, has proved

itself sufficiently efficacious to deserve admission into practice. Some have promise but are still at the experimental stage.

Diet. The efficacy of an adequate diet seems to be proved. However, for the patient the drawbacks of such a diet may often be greater than the advantages.

Vitamin D. It is essential that dentists should recommend to parents that children up to the age of 14 should be maintained on a sufficient intake of vitamin D. No sensational results can be claimed, though this course is a preventive measure and the administration of this vitamin should be encouraged because of its action upon the health of the community.

Fluoridation of Water. The very favourable influence of naturally fluoridated drinking water upon caries (improvement of the order of 60 per cent) is an established fact. The final demonstration of the efficacy of artificially fluoridated drinking water in a suitable proportion (1 to 1.5 p.p.m.) will only be obtained in a few years, when the results of long-term experiments already undertaken are known.

ROENTGEN RAY CANCER OF THE HANDS OF DENTISTS

by FREDERIC E. MOHS, M.D., Madison, Wis.

Conclusions of paper in Jour. A.D.A., Aug. 1952

The exposure of the thumb and first two fingers of dentists from the repeated holding of dental films in the mouths of their patients may lead to radiation damage. This may be manifested by dryness, scaliness, fissuring, ulceration, telangiectasis, atrophy, keratoses and squamous cell carcinoma. Prevention is effected by scrupulous avoidance of exposure. Treatment of the dryness and scaliness is by the sparing use of oily lotions or creams. Fissures, abrasions and ulcerations are treated by producing a crust with Mercurochrome, by dry protective

dressings or by scarlet red ointment-impregnated gauze dressings. Keratoses may be treated by electrodesiccation or by chemical cauterization, preferably with microscopic examination if there is any suspicion of malignancy. Cancer may be treated with surgical, electrosurgical or chemosurgical intervention. The last method with its complete microscopic control of excision has the advantages of unprecedented reliability and maximal conservation. Treatment with radium or roentgen rays is contraindicated.

DENTAL ASSISTANTS—CHILDREN AS DENTAL PATIENTS

By AILEEN BYES

Condensed from Dental Assistant

I am going to tell you a story of a successful visit to the dentist by Johnny, age five. This is Johnny's first visit to the dentist and he is a little apprehensive, having received the impression from various relatives that a dentist's office is a place where there is a boogey man in a white coat who delights in hurting little children. Fortunately for Johnny his parents are very intelligent people and have avoided the mention of pain in connection with dentistry. They have treated the matter of a trip to the dentist's office as an outing rather than an ordeal.

Johnny has an appointment at ten o'clock with Dr. Doe. He arrives about ten minutes early. Johnny is greeted by a neat, well groomed girl who is seated at the desk in the attractive, well lighted reception room. He learns that her name is Mary and she talks with him for a few minutes about the kindergarten class he attends. Johnny is glad she talks to him about something he knows about; he is getting tired of everyone talking baby talk to him all the time. After all he is a big boy now; he'll be going to school next year.

He had hardly gotten started looking at one of the interesting books before

Mary came to the door and said, "Johnny, would you like to come with me; we will go into Dr. Doe's office."

Dr. Doe's office is a maze of interesting things; he keeps asking, "what's that?" of everything he sees, almost faster than Mary can answer him. She shows him how to turn the water off and on in the cuspidor and how to make the chair go up and down. There are several shiny instruments on the tray and she tells him what Dr. Doe is going to do with each one of them, certainly a little old mirror couldn't hurt anyone; I wonder where I ever got the idea this was going to hurt? "Dr. is going to clean your teeth, Johnny," Mary says. "Give me your hand and I will show you how it will feel when Dr. cleans your teeth." Mary places the rubber cup in the handpiece and gently runs it over his fingernail, saying, "Now that is how it will feel when Dr. Doe cleans your teeth."

When Dr. Doe comes into the room he finds a co-operative child instead of a bewildered child waiting for him. Another child has become a more successful patient for the dentist.

It is very gratifying to know that you have had even a small part in making this child patient of today a co-operative adult patient of tomorrow.

DENTURES—CAUSES OF FAILURES AND REMEDIES

by F. S. MEYER, D.M.D., Minneapolis, Minn.

Summary of paper in Jour. of Prosthetic Dent., Nov. 1951

We cannot eliminate the face-bow and get the desired results. Even if the face-bow transfer is not absolutely accurate, it places our work well within the limits of tissue tolerance.

I have endeavoured to show the trend by the profession in the last fifty years toward trying to attain accurate balanced occlusion and function by the articular system. From year to year there has been a continual

change in some of the gadgets used in the articular techniques, with the hope that these changes might be an aid to the profession in reaching the ideal in balanced occlusion and function. In spite of all these changes, we are still told that some adjustments in occlusion (some "juggling", I call it) in the mouth will be necessary to obtain the best results. We had to do this over fifty years ago and if we have to con-

tinue doing so, the modern techniques have gained us very little.

We are all familiar with the troubles in processing. These are yet to be solved, and I firmly believe that they will be solved in time.

REMEDIES

1. The face-bow must be restored to its proper place in dentistry.

2. We must have more practical demonstrations at our dental meetings whereby the members may be able to see the end results of any technique that is carried out properly. Any clinician who thinks he can build a full set of upper and lower dentures in such accurate balanced occlusion that

no occlusal adjustments are ever necessary when the dentures are placed in the mouth must be given an opportunity to demonstrate it before a group of judges. Following this, a similar test must be met by building full upper or lower dentures to opposing natural teeth with some of the opposing teeth out of normal occlusal alignment. If a technique is scientifically correct, we should never be obliged to make any correction for occlusion when the dentures are placed in the mouth.

I firmly believe, from my experience during the past eighteen years, that the generated path technique is the only one proposed up to this time that will meet the above tests.

GINGIVAL AND PERIODONTAL LESIONS IN CHILDREN

by N. E. WICKHAM, B.D.S.

Summary of paper in New Zealand Dental Journal, April, 1952

1. Gingival and periodontal lesions occur in a high percentage of children.

2. The accent is on the more superficial gingival lesions and the formation of false pockets rather than the true pockets with bone loss of the adult.

3. The young patient should be thought of in terms of a future adult periodontal problem.

4. Acute infections call for immediate treatment lest they develop into more serious lesions.

5. The very prevalent habit of mouthbreathing accounts for much of the gingivitis seen in children.

6. Traumatogenic occlusion does not produce other than slight lesions in childhood, but it should be attended to as a preventive against adult periodontal breakdown.

7. In order to safeguard supporting structures, operative procedures on

juvenile teeth should be carried out as painstakingly as on those of the adult.

8. Gingival tissues should be in a state of health before the placement of orthodontic appliances, and treatment should be so planned that they are in place for the minimum length of time.

9. Thorough prophylaxis and instruction in home care are the best services a dentist may render his child patients. Not only will they control gingival lesions but they will improve health and morale, and reduce the incidence of caries.

10. The roll action using a multi-tufted, fine-bristled, small, flat-headed brush appears the simplest and most effective method of toothbrushing for children.

11. Floss silk and interdental massage should only be used by children under exceptional circumstances.

The few United States dollars being spent for public health in our international programs are more productive in end-results and in goodwill than any other money we spend in the whole international field.—Honorable Estes Kefauver.

ANNOUNCEMENTS

● **NUTRITION PHOTOGRAPHIC CONTEST:**— The Nutrition Division of the Department of National Health and Welfare announces a Contest for photography depicting some phase of nutrition work in Canada. The Contest opens October 1 and closes December 31, 1952. The Contest is open to all Canadian dentists, excluding professional photographers and employees of the Nutrition Division of the Department of Health and Welfare and their immediate families.

Any number of 8" x 10" glossy prints may be submitted, together with name of entrant, address and names of persons, if any, in photograph.

First Prize \$100.00. Second Prize \$50.00. Ten additional prizes of \$10.00 each to the best entry, not already a prize winner, from each province.

For further information apply to Contest Editor, Nutrition Division, Dept. of Health and Welfare, Ottawa, Canada.

● **UNIV. OF TORONTO, FACULTY OF DENTISTRY CONTINUATION COURSES** for graduates in Dentistry:—**PERIODONTICS**, Jan. 19-23 under direction of Drs. H. K. Box and C. H. M. Williams. Fee \$75.00. Enrolment Limit 14. **CEPHALOMETRIC TECHNIQUES**, Jan. 26-28, under direction of Dr. Robert E. Moyers with Dr. H. Margolis of Tufts College as guest clinician. Fee \$50.00. Enrolment Limit 10. **OPERATIVE DENTISTRY**, Feb. 16-20, under direction of Dr. P. G. Anderson. Fee \$75.00. Enrolment Limit 10. **DENTAL RADIOLOGY**, Feb. 23-27, under direction of Dr. J. E. Moser with Dr. H. M. Worth as guest lecturer. Fee \$75.00. Enrolment Limit 12.

Apply, The Dean, Faculty of Dentistry, Univ. of Toronto, 230 College St., Toronto 2-B, Ontario.

● **WESTERN CANADA DENTAL SOCIETY CONVENTION** will be held at Jasper Park Lodge, Jasper, Alberta, June 14-17, 1953.

● The **MARITIME DENTAL CONVENTION** is to be held at Keltic Lodge, Ingonish Beach, Sept. 3-5, 1953.

● **THIRTY-FIRST GENERAL MEETING OF THE INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH** March 20-22, 1953, Philadelphia, Benjamin Franklin Hotel.

● **MINNESOTA STATE DENTAL ASSOCIATION** Convention, February 23-25, Minneapolis, Minnesota.

● **ONE-DAY WORKSHOP ON TRENDS IN PUBLIC HEALTH AND INDUSTRIAL DENTISTRY** Hotel Statler, New York City, January 30, 1953, sponsored by the First District Dental Society of the State of New York.

The Workshop will concentrate on fundamental concepts of occupational medicine as they relate to the practice of dentistry in the private office and official health agencies.

Members of the health professions are cordially invited to attend all sessions. Admission free. Apply to Public Health Workshop, First District Dental Society, Hotel Statler, New York City.

● **THE NEW YORK UNIVERSITY COLLEGE OF DENTISTRY** is offering the following **POST GRADUATE COURSES TO GRADUATE STUDENTS OR PRACTISING DENTISTS**. The 1953 Calendar includes courses in the following subjects: Anatomy (head & neck); Airbrasive (given monthly); Biostatics; Ceramics (including acrylics); Crown & Bridge; Inhalation Anaesthesia; Obturators (dental); Operative Dentistry; Oral Diagnosis & Treatment Planning; Oral Surgery; Orthodontics; Pathology; Pedodontics; Periodontia; Physiology & Biophysics; Research in Physiology; Seminar in Physiology; Practice Management; Precision Attachments; Prosthetics (Full Denture Prosthetics, Partial Dentures, Immediate Dentures); Public Health Administration; Pulp Canal Therapy; Roentgenology; Tumours of the Oral Cavity; Surgical Anatomy. Apply Postgraduate Division, N.Y. Univ. College of Dentistry, 209 East 23rd Street, New York 10.

● **A WORLD CONFERENCE ON ENDODONTICS** will be held June 21-27, 1953 at the School of Dentistry, University of Pennsylvania. Participating in this Conference will be outstanding leaders in the field of Endodontics, such as Dr. Francisco Pucll of Montevideo, Uruguay; Dr. W. Stewart Ross of London, England; Dr. B. Nygaard Ostby of Oslo, Norway, and others from Canada and the United States. The Conference will be under the direction of Dr. Louis I. Grossman. The tuition fee is \$100.00. Applicants should make direct inquiries to—Postgraduate Courses, School of Dentistry, University of Pennsylvania, Philadelphia 4, Pennsylvania.



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Editorial

DENTAL POST-PAYMENT PLANS

At the September convention of the American Dental Association held in St. Louis a special meeting was held for the discussion of Pre-payment and Post-payment Plans for Dental Services. The plan receiving the most attention was the post-payment plan operated by the Detroit Dental Society. The plan has been in operation for approximately 20 years which makes it the oldest plan of this character. It has developed slowly until at the present time approximately 60% of the members of the Detroit Society are members of the Plan.

The Detroit Post-payment Plan was outlined in the August issue of the Journal of the American Dental Association and a copy of this article was sent from our C.D.A. Headquarters to Health Insurance Study Committees in Canada and to members of the C.D.A. Board of Governors.

In this issue of the Journal there appears the report of the Health Insurance Study Committee of the British Columbia Dental Association as presented to that Association in June, advocating a post-payment plan for that province.

A growing number of dental associations in the U.S.A. are adopting post-payment plans for dental services. The payments are underwritten by a local banking institution and the patient pays an interest charge of usually 6% on the loan. The dentist receives immediately from the bank 95% of his account, the 5% being placed in a reserve loss fund which, if it becomes large enough, would reduce the 5% deductible. Since June 1 a total of 300 members have joined the District of Columbia Society's plan.

Between February 25 and April 21, a total of \$90,757.91 was paid to participating members of the Oklahoma State Dental Association Payment Plan. Nearly 300 participating dentists sent in a total of 483 notes for payment, the average being around \$187. During 13½ months' operation the California State Dental Association Plan has financed a total of \$1,651,341.60 for dental care.

The plan is growing. The average face value of each of the 7,728 notes accepted was \$213.68. Contracts have been signed by 1,205 members. The first, second, fifth and ninth districts of Tennessee State Dental Association have recently adopted such plans.

With such optimistic reports coming in it behoves our Canadian profession to at least make a study of this plan. However, it might prove interesting to comment on some phases of the plan. One of the strong reasons advanced in favour of this plan is that it permits persons to have dental work completed as required rather than postpone the same on account of inability to pay, in which case they may never have it done. In other words, it brings dentistry within the economic range of more people. This is true, but does the average dentist really advocate and do all the dental work that is required even for patients who are in a position to pay right away or very soon after? In this connection one has in mind the shortage of dental personnel and the difficulty of taking care of even the more urgent work required. Of course, the actual financial loss a dentist sustains in carrying on his practice is the point of paramount importance and perhaps a concrete illustration might have some bearing on this problem.

For many years—thirty-four to be exact—the writer has been happily associated with two other dentists in a group practice. In the case of smaller accounts the work was completed without discussing payment, as a rule. The account, if not paid when the service was completed, was rendered at the end of the month and again the following month, etc. Larger accounts were treated the same way if the patient was well known; if not well known terms of payment were arranged and a credit rating was obtained when thought necessary. One most important feature influencing the payment of accounts is that in this practice an estimate was nearly always given before commencing the service. Under these conditions the loss during the last ten years from unpaid accounts was a little less than half of one per cent and, furthermore, the very large percentage of these accounts were small accounts which would not have fallen into the post-payment plan in any case. Had this now suggested plan been in operation during these years the difference between what was actually received on account and what the patient actually paid would have been considerable. Then the dentist has to take time to explain this system of a loan which might or might not be acceptable to the patient. When the note is signed and the patient requires further service in, say, four months amounting to \$10.00 this amount is payable to the dentist direct, as the writer understands the plan, with the result that he will likely wait for his payment until the bank loan is liquidated. His family may need dental attention also which may be neglected on account of the monthly payments due the bank.

The better jewellery firms do business either for cash or on credit to deserving customers. Other firms are willing to sell a watch for a dollar down and a dollar a month. In the latter case probably the customer could not buy the watch if he had less lenient terms, so does it not depend on what kind of a dental practice we desire to have? Are we wise in encouraging people to accept dental service which has to be paid over a period of twelve or eighteen months? If the work is of paramount importance to produce a reasonably healthy mouth—yes; if it is so-called luxury dentistry, service that the patient can fairly well do without, the answer is "No."

So it seems as though this post-payment plan would work out to be a personal matter, a question of the type of practice a dentist encourages, a question of the business systems carried out in the office, a question of what percentage of

accounts is being lost. Had this writer and his associates been operating under such a plan for the past ten years there would have been a much greater loss to the practice than under the system adopted.

Nevertheless, this post-payment plan deserves careful consideration by the study groups in the dental societies of Canada, that truth may prevail.

M.H.G.

ROYAL CANADIAN DENTAL CORPS NEWS

Brigadier E. M. Wansbrough, Director General Dental Services, Lieut.-Col. G. B. Shillington, Senior Consultant and Major E. C. Purdy, a member of the Instructional Staff of the R.C.D.C. School, attended the 28th Annual Fall Clinic of the Montreal Dental Club.

Colonel C. B. H. Climo, Deputy Director General Dental Services, was present at a Medical Planning Conference held at Supreme Headquarters Allied Powers Europe, Paris on 2nd-4th October.

The Defence Dental Association held its annual meeting at the Seignior Club, Montebello, Quebec on the 20th-21st of October. The R.C.D.C. was represented by Brigadier E. M. Wansbrough and Lieut.-Col. F. R. Drewry.

Major T. L. Marsh, D.D.P.H., attended the Eightieth Annual Meeting of the American Public Health Association at Cleveland, Ohio, 20th-24th October.

Candidates at the post-graduate course in "Diagnosis and Oral Surgery" held at the University of Montreal, 27th-31st October included Lieut.-Col. G. E. Shragge and Major A. T. Roger.

The Royal Canadian Dental Corps Association, formerly known as the De-

fence Dental Association of Canada, held its annual meeting at the Seignior Club in the Province of Quebec, October 20-21.

The following officers were elected for the coming year: Past President, Colonel J. P. Whyte, E. D., Swift Current, Sask: President, Colonel Leonard Kent, M.B.E., Lachine, P.Q.: Vice-Presidents, Lt.-Col. N. W. Snider, Winnipeg, Man., Lt.-Col. Lloyd Sterling, Toronto, Ont.: President-elect, Major M. Murray McDougall, Vancouver, B.C.: Secretary-Treasurer: Lt.-Col. Hugh R. M. McLaren, Ottawa, Ont.

Colonel J. P. Whyte, E.D., presided over the two-day meeting at which delegates from each provincial branch attended as well as the director of dental services, Brigadier E. M. Wansbrough, O.B.E., M.M., E.D. Brigadier C. N. Drury, Deputy Minister of National Defence was the guest speaker at the annual dinner and addressed the delegates and other corps representatives on the progress of the North American Treaty Organization, outlining its organization and accomplishments to date.

Major H. C. Thompson, Secretary

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

Health Insurance—Health Survey Reports:—With the approach of a federal election within the next year many statements are being made already respecting the introduction of legislation for some form of health insurance. Undoubtedly some of these statements are of the "flying kite" variety.

The provincial health survey reports, while not all released as yet, are published with the exception of that for Newfoundland. The recommendation contained in these reports are not binding upon any government. In respect to the question of health insurance the reports contain the following recommendations:

British Columbia: "That comprehensive health insurance be not introduced at present, but receive further study."

Alberta: "It is the opinion of the Health Survey Committee that a medical insurance plan for Alberta should be incorporated in a complete health insurance program."

Saskatchewan: "A comprehensive health insurance program should be undertaken in Saskatchewan at the earliest possible date."

Manitoba: "That the general principle of prepaid health care, in the form of health insurance, or otherwise, be approved; and that as far as possible it be on a voluntary basis supplemented by state subsidy with adequate safeguards as to cost."

Ontario: No mention of subject.

Quebec: No mention of subject.

New Brunswick: "That it be recognized that deficiencies in Medical, Nursing and allied Personal, Laboratory Facilities and Hospital Beds must be dealt with before an attempt to establish an equitable, province-wide and tax supported plan be made.

That until such deficiencies can be corrected, the Voluntary Health Insurance Plans be encouraged for that part of the population that can afford them, and the Government introduce a Medical Care Plan for the Welfare Group which, under any scheme, must be paid for by some government authority."

Nova Scotia: "That no health insurance plan be considered until the facilities and trained personnel are adequate to meet the anticipated volume of services."

Prince Edward Island: "For the furtherance of voluntary prepayment plans, government support is suggested, the government being local, provincial, federal or a combination."

Division of Dental Research Established in Toronto:

—For many years dental research at the University of Toronto was almost entirely the work of one man—Dr. H. K. Box. During the last few years, several others have begun to conduct some research studies. The number of trained personnel at the Toronto centre now engaged in research studies has given rise to the establishment of the first Division of Dental Research within a university in Canada.

During the past few months part of the dental faculty building has been transformed into modern research laboratories with adequate facilities. The University has given generous support to the project together with assistance from two foundations. One difficulty yet to be overcome is the providing of salaries for adequate staff. In order to meet this problem an energetic committee has been organized for the purpose of raising funds in support of this worthy project.

Research is basic to progress in dentistry and all those concerned with this forward step are to be congratulated.

C.D.A. Pension Insurance Plan:—As of October 15, it is reported that \$1,248,000 of life insurance has been placed in force among members of the Association. The actual time the plan had been in operation at the above date was approximately 3½ months.

The volume of insurance written has been most satisfactory to the firm handling the plan. Many members of the Association report long delay in receiving reply to their inquiries. The explanation

given is that the number of inquiries has exceeded expectation and that time is required to work out actual figures on an individual basis. Every endeavour is being made to make replies in an orderly manner but some delay can be anticipated until initial demand for information has been taken care of.

All inquiries respecting the plan should be addressed to:

C.D.A. Pension-Assurance Trust,
Post Office Box 70,
Brockville, Ontario.

Toothbrushes Are Green: — It is reported that over 1/3 of the dentifrice sales are now chlorophyll dentifrices. The rapidity of change to this type of dentifrice is illustrated by the fact that chlorophyll dentifrices were first advertised broadly last February. The total sales of dentifrices in the United States were reported to be \$6,215,000 in July, 1951 and \$7,855,000 in July, 1952, an increase of 26 per cent.

Committee Meetings: — The following meetings have been arranged to take place at C.D.A. Headquarters:

Housing	November 6
Hospital Dental Services	November 11
Health Insurance Studies	November 14-15
Publications	November 28

Centennial Celebration at Laval: — At the recent celebration of the centennial of Laval University, Dr. G. Ratté represented the Canadian Dental Association at which time he presented the following manuscript (English translation):

"To Monseigneur le Chancelier,

To Monseigneur le Recteur,

To honorable members of the Council
and to the Professorial staff of Laval
University:

On the occasion of the great celebrations which mark the centennial of your University, the Canadian Dental Association takes great pleasure and has the great honour to offer to you its admiration, its congratulations and its best wishes.

The reputation of your University, the high place that it occupies in the scientific world are subjects of pride and joy for all Canadian dentists. The latter are happy to join with the representatives from other universities and cultural societies, in a word, with all the friends of L A V A L in extending well deserved congratulations for its many years of work and progress towards peace.

The Canadian Dental Association is happy to number among its members-founders, its presidents and its active members, the graduates from L A V A L who bring great honour to their Univer-

sity and to their Association, and it also takes this opportunity to renew a wish that is respectfully submitted for the attention of the University authorities; the hope that L A V A L may soon receive the necessary facilities for teaching the art of dentistry."

Montreal Honours Professor Bradlaw:

On November 11 Professor Robert Bradlaw, Dean of the Sutherland Dental School, Newcastle-on-the-Tyne, England was presented with an Honorary Degree by the University of Montreal. Professor Bradlaw was invited to New York to deliver a lecture to the New York Academy of Pathology. He is also giving a series of lectures on Oral Pathology at the Dental School, University of Oregon at Portland.

Additions to the Library.

- ARCHER, W. H. A manual of Dental Anaesthesia. 1952. 192p. illus.
- CAMERON, G. R. Pathology of the cell. 1952. 840p. illus.
- CIPES, L. R. Prescription writing and materia medica for dentists. 3rd ed. 1950. 530p.
- COHEN, M. Ceramics in dentistry. 1940. 335p. illus.
- COUNCIL of the Pharmaceutical Society of Great Britain. Hormones: a survey of their properties and uses. 1951. 220p. illus.
- DENTAL BOARD of the United Kingdom. Hygiene of the mouth and teeth. 85p. illus.
- FORSBERG, A. A clinical study of the periodontal tissues of the upper incisors in two age groups. 1951. 105p. illus.
- GOODMAN, N. M. International Health Organizations and their work. 1952. 327p. illus.
- GROSSMAN, L. I. Root canal therapy. 3rd ed. 1950. 368p. illus.
- INSTITUTE of Public Administration, London. The Health Services: some of their practical problems. 1951. 136p.
- Le GROS CLARK, W. E. The tissues of the body. An introduction to the study of Anatomy. 1952. 407p. illus.
- MACINTOSH, R. R. and BANNISTER, F. B. Essentials of General Anaesthesia. 5th ed. 1952. 378p. illus.
- MINISTERIO de Educacion Facultad de Odontologia, Buenos Aires. Archives de la Catedra de Tecnica de Operatoria Dental 1950-51. Vol. III. Republica Argentina. 205p. illus.
- MOSS, A. A. Hypnodontics in Dentistry. 1952. 292p.
- PECK, S. R. Atlas of human anatomy for the artist. 1951. 272p. illus.
- SEARS, V. H. New Teeth for Old. 2nd ed. 110p. illus.
- TERCER CONGRESO NACIONAL de ODONTOLOGIA. Bajo Los Auspicios

Del Supremo Gobierno. Lima 2 al 8 de Octubre de 1949.

Basic Principles Underlying An Insurable Risk: Mr. Frank E. Smith of Chicago, Director of the Blue Shield Medical Care Plans, in an address at the recent A.D.A. Meeting in St. Louis, listed seven basic principles to consider in determining whether dental care is an insurable risk:

1. The risk to be insured must be capable of subjection to the law of mathematical probability.
2. There must be a probability that the person to be insured will experience a financial loss.
3. There must be a large number of independent risks, scattered as widely as possible.
4. The risk must be important to the person to whom the insurance will be sold.
5. There must be uncertainty to occurrence of the risk.
6. Writing of the insurance must not increase the probability of the occurrence of the risk.
7. The risk must be capable of long-term measurability.

Statement of Policy on Industrial Dental Program: Adopted by House of Delegates, American Dental Association, September 1952.

1. The program, in all of its policies and regulations, should be developed to assure the highest quality of dental care for the industrial patient.
2. The industrial patient (employee) should have the right to select the private practitioner of his choice.
3. The program should be developed in full consultation with the dental profession through the medium of state and local dental advisory committees.
4. All dental treatment services should be rendered by a licensed dental practitioner.
5. The industrial program should consist of (a) preplacement and periodic examination including roentgenograms of all employees, (b) emergency service including treatment of injuries and diseases of an occupational nature, (c) keeping of accurate dental records, (d) education in dental health, (e) referral of employee to private practitioner.
6. The dental program should be clearly integrated with the other health services constituting the industrial program, and the professional phases of the dental program should be administered by a licensed dental practitioner.

NEWS FROM THE PROVINCES

QUEBEC

375 dentists from the United States and Eastern Canada attended the **28th Annual Fall Clinic of the Montreal Dental Club** which was held in the Mount Royal Hotel October 22-24. In his welcoming address at the opening luncheon, the president, Dr. N. L. Martin reviewed the present status of dentistry with regard to the prevention of dental caries and urged that more young graduates with scientific interest and aptitudes should be encouraged to enter into the field of dental research. He concluded by stating that "as health, both physical and mental, is the most valuable asset of the individual, so must it be the most valuable asset of the nation. If each member of our profession does his part in this campaign of prevention, the sum of all these efforts will be a notable contribution to the general health of our country."

Under the general chairmanship of Dr. M. L. Donigan, a well-rounded program was presented. Following registration in the early morning, some twenty table clinics were presented by members of the profession and nurses of the Montreal Dental Nurses' and Assistants' Association who were also holding their 18th Annual Convention at the same time. Following luncheon, an essay on "Modern Concepts in Endodontia" was presented by Dr. Harry Albert of New York who discussed his methods of reducing to one appointment treatments in the field of endodontia. The essayist suggested the use of sterile water in the canal (following normal irrigation and filing) and the introduction of a high-frequency current to heat it to a boiling point to sterilize and dehydrate the canal; the amount of heat, of course, being controlled by the reactions of the patient.

"Diagnosis of Oral Lesions" was the subject of the progressive clinic presented by Dr. Hamilton B. G. Robinson, Ohio State University. Demonstrating by the use of x-rays and Kodachromes many common as well as relatively rare oral lesions, Dr. Robinson stressed that the dentist is best qualified to treat most ailments of the mouth, by virtue of his training, and should be given the chance to practise his responsibility.

"Sensitivity to Local Anaesthetics" by Dr. Howard S. Mitchell, McGill University was the essay presented to the general session on Thursday. Although relatively uncommon, sometimes serious allergic reactions occur and he urged the dentist to learn to recognize the

types of allergic reactions patients may suffer.

On Friday, Dr. Gordon Nikiforuk of Toronto discussed the "Etiology and Prevention of Dental Caries". An excellent review of the present status of research in this field was presented and he dealt thoroughly with the value of various methods of reducing this disease—control of refined carbohydrates consumption—the use of fluorine in drinking water—and the topical application of sodium fluoride.

Six limited attendance clinics were also presented on Thursday and Friday covering most of the dental fields. They included: "Partial Denture Prosthesis" by Drs. A. F. Cameron and J. McCutcheon of Montreal; "Improved Cavity Preparation Employing Increased Rotary Speeds" by Commander P. A. Moore, Bethesda Md.; "A One Visit Endodontic Procedure" by Dr. H. A. Albert, New York; "Gingivitis—Its Differential Diagnosis and Treatment" by Dr. D. A. Kerr, Ann Arbor, Mich.; "Self-Curing Resins in Dentistry" by Dr. I. C. Schoonover, Washington, D.C.; and "Basic Considerations of the Operative Procedures for Direct Gold Inlays" by Dr. J. M. Sheldon, Toronto.

Entertainment was well provided for in the form of luncheons with speakers and entertainment, the nurses' cocktail party and dinner dance. There was also a luncheon the opening day for the ladies.

Dr. Donigan and his staff once again deserve wholehearted congratulations for a highly successful convention; they have already started working for next year when the Canadian Dental Association, the College of Dental Surgeons of the Province of Quebec and the Montreal Dental Club will combine forces to present what they expect to be the largest and best convention yet. The dates? Sunday to Wednesday, October 17-20, 1953.

R. F. H.

The September meeting of the **Montreal Endodontia Society** was held at the University of Montreal. Dr. Vincent Tremblay, Professor of Endodontics at the U. of M., gave a practical demonstration of treatment for an infected anterior tooth at the first sitting. Dr. Tremblay explained in detail each successive step as it was done from the placement of the rubber dam to the sealing of the medicament. He stressed the precautions to avoid forcing infection through the periapical area and the importance of frequent irrigation of the canal with a sodium hypochlorite solu-

tion for mechanical cleansing. Following completion of the treatment for the patient, Dr. Tremblay spoke on the pathology involved in the canal and periapical regions of non-vital cases.

The President of the Society, Dr. J. Lantier, announced the program for the year as follows:

October—Dr. Harry Albert of New York.

November—"Apical Curettage", by Dr. J. Belanger.

December—"Problem Cases", a discussion of practical cases by the members.

January—"Periodontia In Endodontics", Dr. R. H. Harvey.

February—"Symposium On Endodontics", Drs. MacSween, Tremblay, Zimmerman.

March—"Endodontics For Children", Dr. W. Phelps.

April—"Forum on Endodontics"—Annual Elections.

A dinner meeting of this Society was held on October 24 with some 35 members and guests attending. Due to the retirement of Dr. S. Veith from the position of secretary of the society, Dr. E. S. Dorion was elected to the position. The guest speaker was Dr. Harry Albert of the Bronx Hospital, New York, who had previously addressed the Montreal Dental Club's Annual Fall Clinic. Dr. Albert reviewed the processes by which he arrived at his method of treating endodontic cases—i.e., by the use of hydrotherapeutics and electronic energy. The meeting was presided over by Dr. Lantier, the president, who extended to Dr. Veith the regrets of the club that he had found it necessary to relinquish his position. R. F. H.

The Mount Royal Dental Society held a general meeting on Oct. 24, 1952. The highlight of the evening was an address by Dr. Vincent Tremblay of the Dept. of Endodontia, University of Montreal, who spoke on "Endodontia in Posterior Teeth".

Dr. Tremblay emphasized the importance of conservative treatment of the teeth. He outlined the following methods.

(1) Pulp-capping.—This method can be used only in a vital tooth with a small early exposure. The tooth should be tested with a pulp-tester and the pulp capped only when there is a favourable prognosis. Calcium hydroxide is the material of choice and gives good results under proper pulp conditions. When it is too late for pulp-capping and

there is infection in the canals we must proceed with (2) Removal of a Partially Vital Pulp.—All infected pulp tissue must be removed, and the canal adequately cleansed and sterilized. The root canal filling may fall short of the root apex which will be closed by cementum.

Under more adverse conditions we are faced with (3) Removal of a Completely Infected Pulp, where the tooth pathology is confined within the limits of the root. Here too the canal must be thoroughly cleansed, sterilized, dried and filled. Attention to these details will result in good healing. Here the tooth must be closed at the apex with a perfectly fitting canal filling. Serious exudates must be kept out of the canal or irritation will result. (4) Similar to above but with apical involvement.—the apical complication may be a granuloma, chronic abscess or cyst. In many cases we have to treat not only the cause but the effect as well, and surgery must be resorted to in order to remove the walled-off infection.

Dr. Tremblay then went into a little more detail in treating bicuspid and molars. He pointed out that we must always keep the number of root canals in mind. In upper first bicuspid entrance is made right in the centre of the tooth and the pulp chamber is opened. It is larger buccolingually than mesiodistally. The floor of the chamber must not be touched by the bur. The canal openings are thus exposed. The tooth is x-rayed and the roots are measured. Proper cognizance is taken of all curvatures, etc., of the roots. The canals are mechanically cleansed with files and the files are measured. Dr. Tremblay warned not to rush the treatment and possibly push infection into the parodontium.

Molars are opened on the mesial of the occlusal a little toward the buccal. Two small mesial canals and a larger distal canal are thus exposed in lower molars, and two buccal canals and a lingual canal in the upper molars. The tooth is measured and the canals cleansed. Dr. Tremblay warned against relying on drugs in root treatment. All necrotic material and bacteria must be removed. The debris is washed out with chlorinated soda.

He stressed control of the sterility of the canals. The canal must be sterile before filling for full recovery and healing. If not, acute or chronic infectious processes will result. The only adequate assurance of sterility is the taking of cultures.

After obtaining two consecutive negative cultures the canals are filled with

silver points the same size as the largest file used. Sealer is used to seal the points to the canals. The pulp chamber is filled and the tooth restored to normal form.

Considerable discussion followed Dr. Tremblay's presentation. The meeting was then adjourned at eleven o'clock.

BRITISH COLUMBIA

For the purposes of **Administration of Health Services**, through local health units, the Province of British Columbia has been divided into eighteen districts. In each of these districts it is the aim of the Division of Preventive Dentistry of the Department of Health and Welfare, to place a director of dental health services, with sufficient personnel so that the program of the Division may eventually be fulfilled.

A recent report of the **Division of Preventive Dentistry** shows that much has been accomplished toward this end, during the past year. The following is the report:

"Preventive Dental Services 1951-52:— During the school year, 1951-52, preventive dental services have operated continuously in five health units in which the service was provided to 14 School Districts, and during some months of the year in two further health units to an additional 5 School Districts.

752 preschool children (including at least 82 three year olds and 158 four year olds) were restored to dental health, i.e., received complete treatment and they, and in most cases a parent, were instructed in the prevention of dental disease. 1406 Grade I pupils similarly benefited.

In the five health units which operated preventive dental services throughout the year, 61% of the Grade I enrolment requested the service, and a further 11% made arrangements with their family dentists. Of those requesting the service 90% received complete treatment. In all, in these Grade I classes 67% of the children were restored to dental health either by the family dentist or the dental officer of the health unit.

The records show that:—

The average	3	year old had	3	decayed tooth surfaces restored.
The average	4 & 5	year old had	5 to 6	decayed tooth surfaces restored.
The average	6	year old had	7 to 8	decayed tooth surfaces restored.
The average	7	year old had	8 to 9	decayed tooth surfaces restored.

The average	3	year old required approximately	1	hour of the dentist's time.
The average	4 & 5	year old required approximately	1½-1¾	hr. of the dentist's time.
The average	6	year old required approximately	2	hours of the dentist's time.
The average	7	year old required approximately	3	hours of the dentist's time.

78% of the children had never before visited a dentist, only 17% had visited a dentist during the previous 18 months.

That the dental officers were truly most interested in preventing dental ill health and saving both deciduous and permanent teeth is shown by the fact that among the preschool children on an average, 22 decayed tooth surfaces were restored for every deciduous tooth that was extracted; and for the Grade I pupils, more than 12 tooth surfaces were restored for every tooth extracted."

This phase of the work of the dental directors of the health units is obviously attacking one of the greatest problems of dental health at its roots, and it is most encouraging to note that steady progress is being maintained.

Dental officers of these units are being trained in dental health service, while they serve the public at their posts. In addition, it is the policy of the Division each year to send one or more members of the dental personnel to universities where they may work for, and receive their diplomas in dental public health.

The officers of the health units are constantly engaged in other branches of dental health service. In close contact with the people of the communities they serve, they do everything possible to educate the people in dental health, to improve personal relations, and to do their full share, together with the medical members of their units to bring the story of health and welfare, in general, to the people of our Province.

L. G. R.

Dr. A. Poyntz, of Victoria, again heads the important **Dental Health Committee of the B.C.D.A.**

The Public Relations Committee of the B.C.D.A., of growing importance during the past year or two, is in the hands of a new chairman—Dr. W. P. Muncie, of Vancouver. It is predicted that he and his committee members will find themselves fully occupied, if this most important phase of the work of the Association is to be adequately and effectively performed.

At a recent meeting of the **Executive Committee of the B.C. Dental Association**, plans were laid for the 1953 annual meeting and convention, to be held at

the Hotel Vancouver next May. Program chairman is Dr. J. G. Ryan, and Dr. C. H. Ridley will have charge of local arrangements for the convention.

The committee discussed at length the problem of overlapping of business meeting and convention affairs during the annual meetings. Members of the Association were asked to give consideration to the proposal of setting aside another day for these business sessions, which are growing in importance each year, so that all members may give full time to the convention programs and activities, and so that attendance at business meetings may not suffer by the absence of many members on convention duties.

The November meeting of the **Vancouver and District Dental Society**, held on the U.S. election night, probably was passed up by a considerable number of members who sat by radio or television to hear election returns. However, a good turn out was on hand to hear the address by Dr. Blanchard, formerly an instructor at the University of California, and Editor of the publication of the American Academy of Nutrition and the Journal of Prosthesis. At the afternoon meeting, Dr. Blanchard's subject was "The Practical Application of Nutrition to Dental Problems." Table clinics were shown on denture construction. In the interval between the afternoon and evening sessions, the Visual Education Committee presented a number of short films on various operative subjects. Following dinner, Dr. Blanchard spoke on "Denture Construction." The speaker will be remembered by many who attended the Pacific Coast Dental Conference at Seattle last summer, when he so ably presented the subject of "Immediate Denture Prosthesis."

At the first fall meeting of the **Victoria Dental Society**, table clinics were presented by Dr. S. F. Miles, on "Oral Surgery," Dr. J. C. Foote, on "Rubber Dam," and H. D. Middleton, on "Space Maintainers."

The executive committee named for the coming year consists of:

President—Dr. S. R. Richardson
Vice-President—Dr. J. L. Magrath
Sec.-Treasurer—Dr. T. W. James

We learn, rather belatedly, that the Victoria members delegated Drs. J. Doohan and J. L. Magrath to see to it that our Canadian president and secretary, Drs. Ratté and Gullett were introduced to Pacific Coast salmon fishing, on their recent visit to Victoria. As with the visit of our finance minister, Douglas Abbott, about the same time, the salmon found no interest in the lures offered by our Eastern visitors. We can understand

their reluctance to swallow all the offerings of the finance minister, but we do regret that Drs. Ratté and Gullett received such undeserved treatment.

For the October meeting of the Victoria Society, Dr. G. Stibbs, of the Operative Department of the School of Dentistry at Seattle, gave an excellent clinic on "Amalgam." He was able to bring along and show a U.S. Navy film on the subject.

Dr. J. Inglis, of Seattle, was guest speaker for the November meeting, on the subject of "Periodontia for the General Practitioner."

SASKATCHEWAN

Results of election for the **Council of the College of Dental Surgeons** for a two-year period.

Re-election of:

Dr. W. F. Hancock, Fort Qu'Appelle.

Dr. R. D. Reid, Prince Albert.

Dr. J. P. Whyte, Swift Current.

Congratulations are hereby extended to these men for this re-election and for the splendid service they have rendered the profession through their faithful service on the Council.

L. D. H.

Dr. J. K. Brimacombe Honoured:—On October 9 high tribute was paid to Dr. Brimacombe of Weyburn when a reception was held in his honour and attended by members of the senior chamber of commerce and numerous old-timers.

In presenting Dr. Brimacombe with a silver tray Major Eaglesham stated that this retired dentist had been mayor of the city nine times, that the work done by him for the Red Cross, the city, and during the Second World War in selling bonds was tremendous.

He was graduated from Univ. of Toronto in 1911 and opened up an office in Weyburn.

Dr. Brimacombe retired about a year ago and expects to move to Victoria.—Regina Leader Post.

MANITOBA:

For the information of those of the profession in Manitoba who are not members of the **Winnipeg Dental Society** we would say that the Society has sent out its program for the 1952-1953 season in the form of an interesting booklet containing a statement on Public Health and Dental Decay by Dr. M. S. Lougheed, the Medical Health Officer of the City of Winnipeg, and a seven page article on "Therapeutic Drugs in the Control of Pain" by Dr. James Passalis, B.A., D.D.S., B.Sc., M.S., Exodontist. This is a new departure by the Society and quite praiseworthy.



PRESENTATION TO DOCTOR STANLEY J. PHILLIPS

Left to Right—Dr. Wes. Langmaid, Dean R. G. Ellis, Dr. Stanley J. Phillips and Dr. Roy Winn of Kitchener.

As well as the above are photo prints of the several clinicians with brief writeups.

The first of these in the person of Dr. Lester W. Burkett, Dean of the Faculty of Dentistry, University of Pennsylvania, appeared before the Society for an all-day session showing slides on "Oral Diagnosis and Oral Manifestation of Some Diseases and Nutritional Disturbances." Dr. Burkett was well spoken of by the large numbers who attended the two sessions of morning and afternoon.

J. F. M.

ONTARIO:

Dr. Stanley J. Phillips of Oshawa was tendered a dinner and presentation by his friends and colleagues on October 22. There were about 60 guests present which included his brother, the Honourable Mackinnon Phillips, M.D., Minister of Health in the Province of Ontario, Mr. Cecil F. Cannon, Deputy Minister of Education in the Province of Ontario, five colleagues on the Board of the Royal College of Dental Surgeons of Ontario, Dean Roy Ellis, Dr. Don Gullett, Secretary of the Canadian Dental Association, and a host of professional colleagues in Dr. Phillips' own community.

Dr. Douglas Langmaid was toastmaster. A number of the guests were called upon to speak during the evening.

Honourable Mackinnon Phillips spoke of problems in general health and the contribution dentistry is making and can make. Mr. Cannon who was a fellow citizen in Oshawa for many years spoke of Stan's contribution to the city as a citizen in the field of education and sport. Dr. Harvey Reid introduced his fellow Board members and added a few personal tributes as a college classmate and a friend over the years. Dean Ellis and Dr. Roy Winn, President of the Board of the Royal College of Dental Surgeons recalled some of Dr. Stan's achievements in dental education and in service on the Board. Dr. Don Gullett presented some of the contributions the guest of honour had made to the Canadian Dental Association.

It was the privilege of Dr. Wes. Langmaid to present Dr. Phillips with a token of esteem—a gold wrist watch. Dr. Langmaid did this very beautifully with appropriate eulogy on behalf of the profession in the dental district in which the honoured guest lives and practises.

Dr. Phillips replied almost brilliantly, although overcome with emotion. He mentioned that much credit for whatever he had done should go to his wife who always stimulated him in his efforts and had never complained when she was so often deprived of his companionship because of duty commitments. Moreover, he pointed out that it was the duty of everyone to give of their

talents and some time to public service. However it has turned out for him that it has been no duty but rather it has been a privilege to serve, and the compensations in friendships and in associations with the leaders of men has far outweighed any possible burden of duty.

Congratulations to Dr. Phillips on this signal honour tendered by his fellows in Oshawa.

T. R. M.

The Dental Alumni, University of Toronto, held its annual dinner and dance on October 17 at the Roof Garden, Royal York Hotel in Toronto with Dr. J. C. Fullerton presiding.

In a brief address Dr. Fullerton reviewed the accomplishments of the executive during the year and mentioned particularly the completion of the Vocational Guidance program, the Scholarship Fund and many student activities which the Alumni supported.

Dr. J. A. Marshall, treasurer of the Scholarship Fund, presented a cheque for \$400.00 to the Faculty of Dentistry for two bursaries to be awarded this year. This was accepted by Dean Roy Ellis who in his expression of appreciation remarked on the many ways in which the Alumni was giving encouragement to the undergraduate body. As examples of Alumni interest he mentioned prizes for the Annual Golf day; support of the "Float" in the University parade where this year "Dents" were awarded first prize; the reception at the faculty on Sunday afternoon of Varsity Homecoming and finally the special concessions to students for attending the dance on this occasion.

As Chairman of the Membership Committee, University of Toronto Alumni, Dr. William Breslin expressed the hope that we might be able to stimulate Alumni interest at this university comparable to that which he witnessed at the Universities of Texas and New Orleans. He said the moral support of all graduates was never more important than now. "Talk it up with your graduate patients," he said.

As Chairman of the Nominating Committee Dr. Breslin presented the following slate of nominations:—

Hon. Pres.: Dr. A. D. A. Mason, Toronto; Past Pres., Dr. J. C. Fullerton, Toronto; Pres., Dr. J. E. Tilson, Toronto; 1st Vice-Pres., Geo. Werry, Oshawa; 2nd Vice-Pres., Dr. T. H. Hutchinson, Port Arthur; 3rd Vice-Pres., Dr. J. G. Chalmers, Toronto; Treas., Dr. R. D. Moore, Toronto.

Drs. S. T. Peterkin, J. A. Crawford, A. B. Hord, E. Rollaston, W. Weir, of Toronto; Dr. H. J. Long, Peterboro; Dr. J. A. Marshall, Belleville; Dr. R. A. Torrance, North Bay; Dr. A. R. Kaukinen,

Sudbury; Dr. I. T. Brill, Timmins; Dr. S. Lee Honey, Welland; Dr. G. Spinks, Dr. A. H. Leckie, Hamilton; Dr. W. H. Pritchard, Ottawa; Dr. W. J. Thackery, Owen Sound, and Dr. W. Bedell, Owen Sound were recommended for executive Council.

Dr. Fullerton introduced the new president, Dr. J. E. Tilson, who spoke briefly.

A special show of one hour followed the business part of the meeting and it was generally conceded that Dr. Bill Armstrong had excelled himself this time in the versatility of the artists secured. The dance and surprise gifts for lucky numbers created welcome interest. But the great treat of the evening centred round the "Rhumba Team" which undertook to teach all the guests the art of rhythmic rhumba dancing. The party finally ended in good spirit at one a.m.

The Seventy-sixth Annual Meeting of the Eastern Ontario Dental Association was held at the Chateau Laurier Hotel in Ottawa, September 21-23, with one of the largest registrations on record.

The Convention was officially opened on Monday noon by the President, Dr. Elwin S. Macartney of Ottawa, at a joint luncheon for the delegates and their wives. Mayor Charlotte Whitton

DR. J. E. TILSON

*President, Dental Alumni
University of Toronto*



of Ottawa extended a very warm welcome on behalf of the city. The principal speaker of the day was Rev. Terrance Finlay who extolled the many advantages of living in Canada and reminded his audience of the great heritage which is theirs to develop in the years to come.

The Scientific part of the program was as follows:

Dr. E. Romle Romine—Detroit, Mich.—“The Relationship of Operative Dentistry to Periodontal Disease.”

Major H. W. Hart—Royal Canadian Dental Corps—“Mouth Preparations in Partial Denture Procedure.”

Col. T. E. Fischer—National Bureau of Standards. Washington, D.C.—“Plastic Filling Materials.”

Dr. Charles McLean—Toronto, Ont.—“Practice Management.”

Dr. John Hein, Rochester, N.Y.—“Dental Caries Control Measures.”

Table Clinics were presented on Monday morning by the following:

Dr. W. D. Clark, Hamilton; Dr. W. A. Crich, Grimsby; Dr. A. B. Hord, Toronto; Dr. F. A. Irwin, Dr. Elwin Macartney; Dr. G. W. Barrett; Dr. Paul Côté; Dr. John Callingham, Dr. J. C. McCavour, Dr. S. W. Bradley, Dr. G. K. Clarke and Dr. A. H. Crowson, all of Ottawa.

Dr. Gustave Ratté, President of the Canadian Dental Association came to the meeting from Quebec City to report on the next convention of our National Association which will be held at Montreal in October 1953.

The members and their wives did, however, have time for relaxation, fun and good fellowship. The usual E.O.D.A. Golf Tournament, a very fine and well attended Musicales on Sunday evening and a Dinner Dance at the Assembly Hall at Lansdowne Park combined to make the Convention a success socially.

The final banquet was held on Tuesday evening with Ron Smith, cartoonist extraordinary of the Ottawa Evening Journal as the guest speaker. His caricatures and deft artistry provided a very entertaining evening. The meeting then closed with the President installing the Officers for 1953, which are as follows:

Pres.—Dr. Harold Beach of Ottawa.
Vice-Pres.—Dr. E. E. Johns, Kingston.

Sec.-Treas.—Dr. F. F. Kemp, Richmond.
Advisory Board—Dr. W. J. Collins, Dr.

J. C. Cummings, Dr. M. M. Derrick, Dr. J. A. Gauthier, Dr. E. S. Macartney, Dr. C. E. Woods, Brig. E. M. Wansbrough, Dr. Lorne Barnabe, Dr. A. C. Stinson, Dr. John Tanton, all of Ottawa. Dr. C. W. Broom, Kingston, Dr. F. J. Phillips, Brockville, and Dr.

A. H. Reid, Arnprior and Dr. E. M. Murphy of Cobden.

Auditors—Dr. L. E. MacLachlan and Dr. W. H. Pritchard, both of Ottawa.

Items of interest in the **Faculty of Dentistry Staff Letter** tell of happenings at the dental building and activity of staff members.

Extramural lectures were conducted in November as follows:—

Dr. George C. Hare was at Halton County Dental Society on November 12. The meeting was at Oakville.

Dr. M. N. Rockman was at Sarnia addressing the Lambton County Dental Society on November 17.

Dr. R. E. Moyers was guest of Kent County Dental Society at Chatham on November 20.

Dr. R. S. Woollatt lectured at Orillia before the Muskoka Simcoe Dental Society.

Registration in the Faculty for the Present Session:

Undergraduates	368
Dental Hygienists	12
Dental Nurses	28

Diploma Courses—

Dent. Oral Surgery and Anaesthesia	1
Dental Public Health	1

Occasional Students

Master of Science in Dentistry—	
General	1
Orthodontics	11

Total 425

Dr. Becks' Notes on Nutrition:—In 1950 Dr. Hermann Becks of California was the guest lecturer at a course provided on the program of continuation courses given by this Faculty. The course was directed to a consideration of the place nutrition and its importance in everyday dental practice. A recording of Dr. Becks' instruction was made at the time and his remarks have since been transcribed and published so that they are available to members of the dental profession. Copies of this manual on Nutrition as Applied to the Practice of Dentistry are available through the University of Toronto Press.

The Division of Dental Research in the faculty formed about one year ago is now functioning under the direction of a full-time chairman, Dr. J. B. MacDonald. For many years dental research at the University of Toronto was almost entirely the work of one man—Dr. H. K. Box. In more recent years there has been increased activity in research and more men taking part. During the past year part of the dental building has been

transformed into modern research laboratories with more adequate facilities.

The expanding research facilities were featured at the Homecoming Week-end Open House at the Faculty on Sunday, October 19. Several hundred persons including graduates of this Faculty from all over the province took advantage of the opportunity of acquainting themselves with recent developments in the research program. A number of interesting exhibits in the fields of histopathology, bio-chemistry, bacteriology, electron microscopy and physiology were on display. The Faculty was honoured by the presence of President Sidney Smith from the University, Mr. George M. Black from the O'Keefe Foundation, and Dr. William C. Leggett.

While there has been a very considerable improvement in the research picture in this Faculty within the last few years, it still falls short of an adequate program. In Ontario there is approximately one dental research worker to every 150 practising dentists. In medicine the proportion is about one to 12. It is important that the Faculty continue to strive for a more comprehensive program of research. Funds will be required, especially to provide salaries for senior research workers who cannot be supported by grants-in-aid.

Among those recently elected to the **University of Toronto Senate** for the next four-year term are:—

Dr. Stanley J. Phillips—Oshawa
Dr. William Breslin—Toronto
Dr. T. R. Marshall—Toronto

Essex County Dental Association has issued its third Annual Journal bigger and better than ever. Achievements of the past year are set forth together with the program for the Season 1952-53. Further there are five short articles prepared by the members — Dr. L. J.

Fenech, Dr. Don C. Wickens, Dr. J. D. Scarfone, Dr. F. J. Stodgell and Dr. W. J. Pepin.

The boys down Windsor way are certainly up and doing and their society is a going concern. Good luck, fellows.

The Second George W. Grieve Memorial Lecture was given in Convocation Hall, University of Toronto, on Monday evening, November 10. The speaker, Dr. Spencer R. Atkinson of Pasadena, California, talked on Teeth, Health and Happiness. Dr. Roy Ellis, Dean of the Faculty of Dentistry, University of Toronto, was chairman of the meeting. He presented Dr. Braithwaite Dixon, Chairman of the Orthodontic Section of the Canadian Dental Association. Dr. Dixon explained the purpose of the Grieve Lecture and then introduced the speaker, Dr. Spencer R. Atkinson.

An appreciative audience listened to Dr. Atkinson describe simply and clearly some of the fundamentals of growth and development of the face and teeth. The address was illustrated by many beautiful slides which enabled all to see the normal face contrasted to variations from the normal. Dr. Atkinson used his slides of skull sections to show how certain types of malocclusion originate and progress. The effects of abnormal pressures on the face of the growing child were emphasized. Dr. Atkinson advised parents to place their children at two years of age under regular dental supervision. It was pointed out that in this way variations from the normal occlusion could be recognized and diagnosed at an early age and preventive measures instituted to prevent the occurrence of more serious types of malocclusion.

After the lecture Dr. Harry Thompson very capably expressed the meeting's great appreciation to Dr. Atkinson for his most interesting and enlightening address.

BRITISH COMMONWEALTH NEWS

GREAT BRITAIN

Filling Materials:—In the September 16 issue of the British Dental Journal, the Editor, in an article with regard to "Filling Materials," states as follows:

"For many years gold foil remained the only material with which a tooth could be filled with any assurance of permanence. It is, indeed, doubtful whether any fillings have stood the test of time so triumphantly as the gold fillings inserted by some of the old masters of that now almost forgotten art.

"The main objections to gold foil as

a filling material are that its insertion in a cavity of any size is a long and tedious business and that its appearance is aesthetically undesirable. In the early days this latter objection was not a very potent factor and many patients took as much pride in their well polished contour gold fillings in their incisor teeth as did the dentist who had inserted them. That phase, however, belongs to the past and the great majority of patients, if given the choice, would accept a sacrifice of some degree of permanence in order to avoid a display of gold. The aesthetic drawbacks of gold applied only to ante-

rior teeth; that of the tedious nature of its insertion applied to all teeth and with particular force to fillings in posterior teeth where access to the cavity was difficult. In such cases both patients and operators were subjected to a considerable degree of physical and nervous strain. This consideration, coupled with the fact that such restorations were relatively costly, limited the usefulness of the method and the introduction of amalgam as a filling material, coinciding as it did with a steadily growing appreciation of the benefits to be derived from conservative dentistry, led to the almost complete abandonment of the use of gold for posterior teeth. This position has been modified to some extent since the advent of the cast gold inlay, but for economic reasons amalgam has become the standard filling for all positions where considerations of aesthetics can be disregarded.

In Great Britain and Northern Ireland there are just 15,000 dentists on the register, and of these a considerable number, on account of their age and other reasons, are not capable of contributing a full share to the dental treatment of a population of 50 millions.

15,000 dentists for 50 million people, means one dentist to every 3,333 of the population, while in Scandinavia there are 6,662 dentists to just over 14 million

people, about one to every 2,163 of the population.—Br. D. Jour.

Health Service Figures:—An Appendix to the Report of the Ministry of Health covering the period from April 1, 1950, to December 31, 1951, contains figures which show the extent to which the gross earnings of the profession have been affected by successive reductions in the scale of fees and as a result of the imposition of a charge for dentures. In 1949 fees paid to dentists in the general dental service amounted to just over £42-3 million whereas in 1951 the total, including patients' contributions, was £33-6 million—a decline of almost 20 per cent. Although the effect of the charge for dentures would not be reflected fully in the figures for the second half of 1951, these show that the gross turnover in that period, at £15-5 million, was approximately £2-5 million less than that for the first six months of that year. An even more striking illustration of the effect of the charge for dentures is provided by statistics of the number of estimates for prior approval in 1951—the total for the second half of the year being only 52 per cent of that for the first half. On the other hand there has been a steady increase in the number of cases of complete treatment for which prior approval was not required. This fact encourages the hope that there is a steadily growing appreciation of the value of conservative treatment.

—Br. Dental Jour. Oct. 21, 1952

GENERAL NEWS

Nearly 8 million persons in the United States are receiving fluoridated water as a protection against dental decay and the measure has been approved for more than 16 million others, it was reported in *The Journal of the American Dental Association*.

The yearly cost of the program was found to average slightly more than nine cents a person with one-fourth of the communities operating the program at an annual per capita cost of five cents or less.

The majority of the communities, the survey showed, financed the program through water revenues, many without an increase in rates.

The measure was being carried out in communities of all sizes, ranging from Norwood Village, Wash., serving 150 persons, to Washington, D.C., serving 1 million persons.

The 10 states with the largest number of communities providing fluoridated water are Wisconsin, 89 cities and towns; Maryland, 60 communities; Ken-

tucky, 36; Michigan, 27; Minnesota, 19; Georgia, 18; Indiana, 17; New York, 16; Florida, 11, and Tennessee, 10.

"Progress is being made in spite of the fact that many objections have been raised by the misinformed and by those who have chosen to oppose the measure, apparently for reasons of financial and political expediency or personal notoriety," the report said.

Opposition to Laboratory Technician Licensure:—The Executive Committee of the Washington State Dental Association in September passed the following resolution in opposition to State licensure, registration or legal certification of Dental Laboratory Technicians or Dental Laboratories:

"WHEREAS: The Washington State Dental Association has gone on record of direct opposition to licensure, registration or legal certification of Dental Laboratories or Technicians and

"WHEREAS: the Washington State Dental Association is in accord with and

deems to aid the laboratories and technicians in many ways short of licensure, registration or legal certification.

"BE IT: Resolved that the Washington State Dental Association adopt the following program:

1. Proposal of "auxiliary membership" for the Washington State Dental Laboratory Association, which includes—A plan to be drawn by a Committee appointed by the President and approved by Washington State Dental Association.
2. Proposal of education of Dental Laboratory Technicians in A.D.A. accredited dental schools—this is to be accomplished on a long-range basis.
3. Participation of the craft in that part of Dental Society meetings of interest to the Laboratory Association.
4. The setting forth by the Central Office of the Washington State Dental Association in the State Journal of:
 - (a) A program of information to the dentist of the dental laboratory problem.
 - (b) A program of continuous information toward the solution of the dental laboratory problem."

Rejection of OASI:—Two resolutions which would have approved the inclusion of dentists under the provisions of Old Age and Survivors Insurance, were rejected after discussion on the floor of the House for the second consecutive year at the St. Louis Convention of the A.D.A.

A "Pilot" Prepayment Group Plan which would cover treatment given in the dentist's office was outlined by Bernard Clug, representing the First District Dental Society of New York, in a discussion of prepayment and postpayment health plans September 6, at the third annual Dental Health Conference conducted by the Council on Dental Health.

The proposed Group Health Dental Insurance, Inc., of New York, said Dr. Clug, is a prepayment plan in which 25,000 patients and 7,000 dentists could participate. Its keystone is the provision for complete rehabilitation of the patient's mouth when he enters the plan; the patient would pay a maximum of \$150 for this treatment and the plan would pay the rest, Dr. Clug explained. "The plan then becomes a maintenance plan," he added.

It is proposed that participating families be limited to those whose annual income is less than \$5,000. The annual premium for a single person would be \$19.80; for a couple, \$39.60, and for a

family of three or more, \$72. The insured persons would have a choice of dentist, and all financial transactions would be handled through a central office, Dr. Clug concluded.

—Jour. of A.D.A.

Pennsylvania Bans Candy and Soft Drinks in Schools:—The Pennsylvania Department of Health has announced recently that it will deny aid to dental clinics for school children if candy or soft drinks are sold in the school.

Kellogg Foundation Awards \$115,300 to Dental Schools:—Two grants for the improvement of dental education—\$79,000 to the University of Michigan and \$36,300 to the Medical College of Virginia—have been awarded by the W. K. Kellogg Foundation. Both grants are for three-year programs.

A. D. A. Relief Fund Drive Opens; \$100,000 Goal Set:—The annual appeal for contributions to the Relief Fund of the American Dental Association has been opened with the distribution of Relief Fund Seals to all members of the dental profession in the United States. The Relief Fund, a charitable trust supported by voluntary contributions of dentists, provides assistance to those members of the dental profession who, through accident or illness, are totally unable to help themselves.

The campaign goal is \$100,000 again this year, and individual quotas have been set for the 54 constituent societies, it has been announced by the Council on Relief. Last year more than \$94,200 was contributed and 31 constituent societies and the Air Force reached or exceeded their respective quotas.

The Council expressed confidence that this year the Relief Fund would reach its \$100,000 goal for the first time in its history. As contributions are sent to the Central Office, each will be recorded and credited to the state from which it originated. The Association Relief Fund pays one half of each relief grant and the Fund of the state concerned pays the other half of each grant.—Jour. Amer. D. Assoc., Nov. 1952.

The American Academy of Implant Dentures is holding a Dedicatory Meeting at 10 a.m. in the Sheraton Hotel, Chicago, Ill., on February 7. It is expected that complete statistics gleaned from over 300 successful implant cases throughout the world will be presented. The \$10.00 reservation fee should reach Dr. Wm. E. Barb, 668 E. Maple Road, Indianapolis, Indiana by January 15, 1953.

IN MEMORIAM

Percy Thayer Coupland of Toronto, Ontario, aged 73, died on October 9. Dr. Coupland was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1905. He began his practice in St. Mary's where he continued until 1932. He came to Toronto in 1940.

Dr. Coupland was an enthusiast about his profession and a respected citizen in his community. He served on St. Mary's town council for five years and was Mayor in 1914. He served on the Board of Education and was Chairman of Utilities Commission-Hydro and Waterworks. He was prominent in fraternal circles having held office in both the Masonic Order and the Odd Fellows. He served as a member of Grand Lodge for seven years and had the 32nd degree in masonry conferred. He was Past Grand Master Independent Order of Odd Fellows and had served as Grand Treasurer for 14 years.

In his church life he was a Presbyterian and an Elder. He had been Sunday School Superintendent 24 years.

Thus had Dr. Coupland given of his talents and energies in a public way.

He is survived by his widow and a worthy son, Dr. James Coupland of Ottawa.

•
John Orr Wilson of Lakefield, Ontario, aged 78, died on October 12. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1911.

Dr. Wilson practised in Toronto until 1927, then in Windsor until 1951 and then he moved to Lakefield. He was a member of the Presbyterian Church.

He is survived by his widow and six sons.

John Wilfred MacVicar of Forest, Ontario, aged 53, died on October 14. He was graduated from the Faculty of Dentistry, University of Toronto, in 1929.

Dr. MacVicar began his practice in London, Ontario, but soon moved to Forest where he continued until his death. He was a member of Lambton County Dental Society. He was a Charter Member of Forest Rotary Club and a member of the Official Board of the United Church.

He is survived by his widow and one daughter.

•
William James Albert Gilbert of Toronto, Ontario, aged 60, died at Sunnybrook Hospital on October 21.

Dr. Gilbert was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1922 and practised his profession in Toronto. He served in the first Great War from 1914 until his discharge in 1918 in the capacity of Sapper in the 2nd F.C.C.E. and later as Lieutenant in the 75th Canadian Infantry Battalion.

He is survived by his widow and one son.

•
Hubert Fred Klopp of Elmira, Ontario, aged 59, died on October 31. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1919.

Dr. Klopp had practised in Amherstburg, Welland, Kitchener and latterly in Elmira. He was a member of Kitchener and Rockway Bowling Clubs and the Kitchener Granite Curling Club. He was a member of the Masonic Order and a member of the English Lutheran Church.

He is survived by his widow and one daughter.

DIRECTORY

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Matters relating to the French Section of the Journal should be addressed to the French Editor, Dr. G. de Montigny, 400 est Blvd. St. Joseph, Montreal, P.Q.

Matters relating to the business of the Journal should be addressed to the Business Manager, Dr. Don W. Gullett, 234 St. George Street, Toronto, Ontario.

Subscription Price of Journal in Canada, Great Britain, the United States and all other countries, \$3.00 per year.

All additions and changes of address should be sent to Dr. Gullett before the 20th of the month, to become effective the following month.

Matters relating to advertising should be addressed to the Advertising Representative, Mr. W. Edgar Read, Consolidated Press, 73 Richmond Street W., Toronto, Ontario.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 18

DECEMBRE, 1952

No 12

Souhais du Président

Santé et bonheur à tous les dentistes canadiens et leur famille.
Satisfaction et prospérité dans la pratique de leur profession.

Persévérance et courage à tous les Gouverneurs et Officiers de
l'Association dans l'accomplissement de leur tâche.

Bonne et heureuse année à tous.

Québec, Qué.

Gustave Ratté

Président de l'A.D.C.

Méthode nouvelle de traitement de la pyorrhée

par RENE VINCENT, stomatologiste, Paris, France

Les faits cliniques sur lesquels j'ai attiré votre attention incitent à apparenter, même, à identifier la pyorrhée à la pathologie, c'est-à-dire à la raréfaction de l'os alvéolaire.

Ils montrent clairement que la pyorrhée n'échappe pas aux lois qui dans l'organisme, régissent la pathologie du tissu osseux.

En accord avec les deux grands modes de raréfaction osseuse, la pyorrhée se présente en clinique sous deux aspects bien dissemblables.

Où la gencive offre tous les signes classiques de l'infection locale: rougeur, tumeur, chaleur, clapiers avec suppuration, gingivorrhagies et tartre.

Où la gencive est pâle, anémique et aucune manifestation infectieuse n'est cliniquement décelable à son niveau: il n'y a ni suppuration, ni clapiers, ni gingivorrhagies, ni tartre.

Chez les porteurs de ces lésions, l'examen de l'état général révèle des états pathologiques de même nature que ces lésions locales et du même ordre que les maladies générales qui provoquent dans l'organisme la pathologie, la raréfaction du tissu osseux.

Ce sont dans le 1er cas des maladies infectieuses microbiennes et, dans le second, des maladies amicrobiennes mais génératrices de troubles du métabolisme calcique.

Il est inévitable qu'à des processus pathogéniques aussi différents corresponde une thérapeutique différente.

C'est du traitement de la forme inflammatoire, auquel je me suis particulièrement attaché, que j'entends surtout vous parler.

Cette forme n'est peut-être pas la plus fréquente, mais la rapidité bien plus grande de son évolution, l'importance des

troubles fonctionnels qu'elle provoque et le peu d'efficacité des moyens thérapeutiques dont nous disposons nous la font considérer comme beaucoup plus grave.

Ce traitement sera donc général et local. Si le traitement général ne peut incomber au dentiste, il lui appartient toutefois de le provoquer. Un interrogatoire sommaire sur l'état général antécédant et présent du malade lui en apprendra le plus souvent assez pour lui permettre d'orienter son malade vers le médecin ou le spécialiste qualifié. S'agit-il, c'est le cas le plus fréquent, d'un malade atteint de colite avec constipation ou diarrhée, d'appendicite subaiguë ou chronique, d'ulcérations gastro-intestinales, c'est le gastro-entérologue qu'il faudra alerter. Le malade souffre-t-il d'amygdalites à répétition, de sinusite chronique ou d'otite, ce sera l'otorhinolaryngologiste.

Se plaint-il de troubles génitaux subaigus ou chroniques, tels qu'annexite, métrite, prostatite, ce sera le chirurgien gynécologue, ou urinaire.

Présente-t-il une dermatose rebelle de nature visiblement infectieuse, le dermatologiste, ou encore une lésion infectieuse de l'oeil, telle que dacryosiptite ou uvéite, l'ophtalmologiste.

Dans tous ces cas, le résultat de l'hémoculture gingivale est des plus importants à faire connaître à ces praticiens.

Il signe en effet la nature infectieuse de la maladie générale, révèle le germe responsable et oriente la thérapeutique anti-infectieuse du ou des foyers dont la pyorrhée n'est qu'une localisation métastatique.

Voici très succinctement la technique de l'hémoculture gingivale.

"On recherchera une languette interdentaire au stade de gingivite prémonitoire, c'est-à-dire nettement enflammée, légèrement hypertrophiée et congestionnée, de couleur rouge violacée. Un léger frottement de la pulpe du doigt le fait blanchir pour revenir aussitôt à sa couleur primitive. La moindre piqûre provoquerait une petite hémorragie alors que sur une gencive normale on n'obtiendrait qu'une infime gouttelette de sang. On désinfectera la gencive à l'alcool (nous avons à maintes reprises vérifié

bactériologiquement l'efficacité absolue de ce mode de désinfection), on laissera sécher.

Ce prélèvement sera alors effectué au moyen d'un pipette Pasteur (n'utiliser que des pipettes en verre de bonne qualité, étirer l'effilure à la lampe et la briser de façon que la pointe soit assez fine pour pénétrer dans la gencive sans s'opposer à l'aspiration du sang). On ponctionnera alors franchement en pénétrant au milieu de la base de la languette et en dirigeant la pointe de la pipette vers le septum osseux. Le sang monte par capillarité dans la pipette et en remplit l'effilure. Dans les pyorrhées avancées avec clapiers constitués, il faudra soigneusement en repérer la profondeur et effectuer la ponction assez en arrière pour éviter le contact de la pipette avec la zone active infectée. Le sang recueilli est étalé à la surface d'une gélose nutritive, en tube incliné. Le milieu doit être maintenu horizontal quelques instants pour éviter la chute du sang au fond du tube.

Après un délai d'incubation à 37° variable, de 24 hrs à 2 ou 3 jours, rarement davantage, on peut observer l'apparition de colonies microbiennes dont l'étude sera poursuivie suivant les méthodes habituelles.

Les propriétés hémolytiques des streptocoques fréquemment isolés sont évidentes sur la culture même, grâce à la courbe de sang recouvrant la gélose. Les fines colonies obtenues sont entourées d'un halo d'émolyse plus ou moins large."

Je ne reviendrai pas sur l'intérêt de l'hémoculture gingivale dans la pathogénie de la pyorrhée. J'insisterai, ici, seulement sur les services qu'elle peut rendre aux deux points de vue diagnostique et thérapeutique.

Dans le cas de diagnostic facile, elle apporte une confirmation non négligeable et permet l'accolade bactériologique entre des états pathologiques éloignés dans leur siège mais de même nature microbienne.

Dans les états pathologiques généraux peu accusés et de diagnostic hésitant, elle est un guide des plus utiles.

Combien de fois la révélation d'un entérocoque ou d'un streptocoque ne m'a-t-elle pas permis de déceler des doli-

chocolons, des retards de transit, des parasitoses méconnues jusque là!

Bien souvent encore, elle m'a donné la clé de ces états septicémiques, atténués, chroniques si fréquents que le médecin, faute de test bactériologique, ne fait que soupçonner.

Combien encore d'états septicémiques plus graves et notamment à streptocoque hémolytique n'ont-ils pas perdus, grâce à elle, leur qualification de cryptogénétique; sur le plan thérapeutique, elle m'a rendu les plus grands services en permettant l'utilisation d'un auto-vaccin.

Il peut paraître à 1ère vue retardataire d'avoir encore recours à la vaccinothérapie à une époque où les antibiotiques jugulent les infections microbiennes de façon si merveilleuse et spectaculaire.

C'est que dans les états infectieux chroniques anciens ou atténués, leur action est à peu près nulle, alors que l'autovaccinothérapie est efficace.

Certes dans les cas d'infection aiguë et subaiguë, l'auréomycine, la typomycine, la streptomycine donnent d'excellents effets aussi bien sur l'état général que local mais leur proportion est minime par rapport à la fréquence des infections chroniques rebelles habituellement génératrices de pyorrhée inflammatoire.

Enfin, et je crois important d'y insister, la vaccinothérapie met en état de défense l'organisme contre le danger des réensemencements sanguins que toutes les actions thérapeutiques au niveau de la gencive infectée ne manquent pas de provoquer.

Si le foyer pyorrhéique n'est que secondaire, métastatique, il n'en joue pas moins un rôle de "focal infection" sur lequel je pense que tout le monde ne peut manquer d'être d'accord. Aussi ai-je accoutumé, avant tout traitement local de précéder à une préparation du terrain par une série d'auto-vaccins en même temps naturellement que la thérapeutique générale prescrite par le médecin traitant est mise en train.

Il est remarquable de constater que cette double action est déjà très efficace sur l'état infectieux de la région gingivodentaire et permet de gagner un certain nombre de séances de traitement local.

J'ai accoutumé, surtout dans les formes anciennes, de conseiller l'usage de la vaccinothérapie pendant fort longtemps, avec des alternatives de repos et de reprise pendant parfois des années.

La souche est-elle perdue, car la gencive traitée ne permet plus d'obtenir la positivité de l'hémoculture gingivale, je conseille l'utilisation de vaccine polyvalents après l'épreuve de l'intradermoréaction pour s'assurer de son efficacité.

Dans le traitement local, le but à atteindre est évidemment la destruction du foyer pyorrhéique constitué et la modification du terrain gingival pour qu'il devienne impropre à la culture ou à la fixation des germes générateurs par voie sanguine de la pyorrhée, enfin, la consolidation des dents dans la mesure où ce qui subsiste de son état osseux justifie cet espoir.

Je ne développerai pas les procédés de traitement local, adjuvants à mon sens, mais nécessaires sur la pratique desquels j'imagine que les praticiens sont internationnellement d'accord. J'entends ici, la rectification de l'articulé, la suppression des micropolytraumatismes, la dévitalisation, les redressements dentaires, l'immobilisation provisoire des dents par attelles ou dentiers-attelles, la mise à plat des clapiers par gingivectomie locale et curettages.

Je m'étendrai en revanche un moment sur le tartre et le détartrage, unique traitement encore pour beaucoup de la pyorrhée.

Voici d'abord à ce sujet quelques faits cliniques. Quelle que soit l'hygiène dentaire, il est des bouches qui ne font jamais de tartre et d'autres où sa production est incessante. Le tartre se présente sous deux aspects différents. Il est blanc jaunâtre et friable, relativement facile à détacher ou il est brun vert ou rougeâtre dur, dense, adhérent et difficile à enlever. Les dents qui ne servent plus à la mastication parce qu'elles n'ont plus d'antagonistes se recouvrent de tartre blanc jaunâtre et friable. Les malades dont les gencives ne présentent pas d'inflammation et notamment ceux atteints de pyorrhée ischémique ne font jamais de tartre coloré adhérent.

Les malades dont les gencives sont ou ont été la siège de poussées inflammatoires et parmi eux tous ceux qui sont atteints de pyorrhée inflammatoire, quel que soit leur âge ou leur hygiène dentaire, font invariablement du tartre coloré brun vert ou rouge.

L'observation attentive du début de la pyorrhée montre que le malade, exempt de tartre jusque là, commence à en présenter dès les premières poussées de gingivite, annonciatrice de la pyorrhée prochaine.

Le Ca du tartre vient-il, comme il est prétendu, du Ca contenu dans la salive?

L'analyse chimique de la salive décèle que le phosphate alcalin trisodique domine dans la proportion de 0.95% environ, le phosphate terreux restant dans une moyenne de 0.09%.

L'analyse du tartre donne des proportions exactement inverses.

Les éléments cellulaires du sang et le tissu osseux possèdent une haute teneur en phosphates terreux.

Enfin, la coloration brun vert ou rouge du tartre est due à la présence de la biliverdine et de la bilirubine d'origine sanguine.

Le rapprochement des faits cliniques et chimiques incitent à penser que le tartre coloré prend sa source dans le sang des hémorragies gingivales consécutives aux phénomènes inflammatoires locaux de nature microbienne.

Les flores microbiennes causale et secondaire jouent le rôle de précipitants.

Il est à noter que le sang des gingivorragies en relation avec la raréfaction osseuse alvéolaire due à l'hyperhémie locale est surchargé de Ca.

Le tartre apparaît comme une mutation calcique du Ca osseux alvéolaire libéré par l'hyperthémie d'origine inflammatoire.

C'est un fait que les malades dont le traitement local parvient à arrêter l'évolution de la pyorrhée inflammatoire ne font plus de tartre.

Ainsi le rôle tout au moins exclusif de la salive dans la formation du tartre apparaît-il douteux.

Le tartre ne semble pas être la cause de la maladie. Il n'en est que la consé-

quence. Personne d'ailleurs ne prétend en médecine générale que le calcul biliaire soit la cause de la cholecystite.

Est-ce à dire qu'il ne faille pas faire de détartrage? Je ne le pense aucunement. Le tartre, en contact avec la gencive, est une cause d'irritation et augmente de ce fait l'hyperhémie décalcifiante dans les périodes de quiescence relative.

Au moment des poussées de gingivite aiguës ou subaiguës si caractéristiques de l'évolution de la pyorrhée inflammatoire, il en aggrave singulièrement l'intensité.

Le détartrage est indiscutablement une nécessité du traitement local, mais il ne saurait prétendre enrayer ou guérir la pyorrhée à lui seul.

Il apporte une amélioration qui pour n'être que temporaire n'est pourtant pas négligeable.

Encore ce détartrage indispensable demande-t-il à mon avis à être pratiqué après avoir pris quelques précautions logiques.

Il s'agit en effet d'une intervention en milieu septique, car il est pratiquement impossible à son occasion de ne pas léser, de ne pas faire saigner la gencive.

Des résorptions sanguines toxiques et microbiennes sont de ce fait inévitables. Il n'est que de prendre la température des malades pyorrhéiques avant et après le détartrage pour constater des ascensions thermiques de plusieurs 1/10èmes de degré. J'ai publié à ce sujet de nombreuses observations démonstratives.

Je n'en résumerai qu'une pour me faire mieux comprendre. Il s'agissait d'un malade dont la pyorrhée était exclusivement soignée par des séances assez rapprochées de détartrage poussé. Son état général ne cessait de s'aggraver jusqu'à présenter un syndrome anémique avec fièvre mettant sa vie en danger. La numération globulaire tomba jusqu'à 800,000 globules rouges.

L'hémoculture gingivale donna le clé de cette septicémie cryptogénétique accompagnée d'anémie et, en fournissant un streptocoque hémolytique, au bactériologiste, permit de sauver le malade.

A l'occasion de chaque séance de détartrage un réensemencement massif de streptocoque hémolytique aggravait la

septicémie chronique du malade. Entre la simple et légère élévation de température et des réinfections de la gravité de celle de cette observation, il est évidemment toute une gamme d'états intermédiaires. Il est bien certain que le détartrage si couramment pratiqué est une intervention habituellement bénigne mais n'y eut-il qu'une chance sur 1,000 d'aggraver sérieusement l'état général du malade, j'estime qu'elle ne doit pas être prise.

En conséquence, je n'entreprends le détartrage qu'après avoir soumis mes malades à une série d'au moins six injections d'autovaccin, c'est-à-dire, après avoir provoqué une réaction antigénique suffisante pour qu'un réensemencement même important soit pratiquement sans danger.

Voici donc grâce au traitement général sinon l'arrêt, du moins un sérieux ralentissement de l'arrivée par bactériémie des germes essaimant vers la gencive.

Dans les cas où une exérèse chirurgicale, par exemple, a définitivement tari le foyer initial infectant (appendicectomie, hystérectomie etc.), on assiste même à un tarissement réel.

Les conditions favorables sont maintenant créées pour les interventions locales susceptibles de retentir sur l'état général, telles que le détartrage et la destruction des clapiers pyorrhéiques.

Celles-ci réalisées, comment rendre le tissu gingival périodentaire impropre à la fixation, à la pullulation des germes et comment, en dernier lieu, consolider l'organe dentaire ébranlé?

Je ne puis donner ici qu'un bref aperçu des recherches que j'ai entreprises et qui m'ont permis d'atteindre le but proposé. Frappé par le faible contact osseux nécessaire pour assurer à la dent, dans la forme ischémique par exemple, une solidité et un usage fonctionnel satisfaisants, je cherchais le moyen de créer entre ce qui subsiste d'os alvéolaire et la racine une sorte de cal en densifiant le conjonctif ligamentaire. Le but proposé consistait en somme à créer artificiellement et de façon durable, dans ce qui reste de ligament dentaire, un conjonctif calcifié.

Il existe de fait en pathologie générale

des maladies où l'on observe ce processus produit par la nature: ce sont les maladies dites calcinoses: la chéloïde, la sclérodémie, les calcifications tendineuses, etc.

Par ailleurs, et c'est un fait expérimental, il est possible de provoquer dans le conjonctif un précipité calcique par injection par exemple d'un hypophosphite de Ca. Il se forme un nodule calcaire, mais bientôt en quelques semaines, l'organisme, qui ne permet la fixation durable du Ca normalement que sur un conjonctif habitué à le fixer comme le tissu osseux, le résorbe entièrement.

Le calcul de la vitesse avec lequel il y parvient a justement servi de test au Prof. Loeper dans les maladies précipitantes.

Il serait trop long de relater ici les expériences successives qui m'ont amené à obtenir précisément une calcinose artificielle, c'est-à-dire une saturation calcique durable dans le tissu conjonctif.

En 1939 je pouvais faire à l'Académie de Médecine de France une communication sur les utilisations thérapeutiques des sels insolubles de Ca formés in situ, à l'état naissant:

Par l'infiltration successive d'un sel soluble de Ca facilement décomposable, comme le glucosate ou le levulosate de Ca, puis de son précipitant normal, un phosphate disodique, on obtient sur les cobayes d'expérience la formation d'un tissu très voisin de celui des calcinoses.

Il se forme une tumeur dure fixant la peau à l'épicrâne et persistant jusqu'à la mort des cobayes au laboratoire, c'est-à-dire jusqu'à 18 mois et même plus.

Macroscopiquement, il s'agit d'une tumeur blanchâtre ayant la consistance du cartilage et crissant sous le scalpel.

En coupe histologique, on constate une surcharge calcique du conjonctif remarquable. Les fibres conjonctives apparaissent considérablement hypertrophiées, torsadées et enchevêtrées. Les espaces lymphatiques interfasciculaires sont complètement colmatés par le précipité de Ca et la circulation capillaire est massivement réduite.

Appliqué à la région gingivodentaire, ce procédé m'a permis d'obtenir le pseudocal recherché et, avec lui, des consolidations inespérées dont de nombreux exem-

ples ont été présentés à la Société de Stomatologie de France.

En utilisant cette thérapeutique j'eus la surprise de noter la regression indiscutable des manifestations inflammatoires si désespérément tenaces dans la pyorrhée: notamment la revêtement dermo-épithélial reprenait un aspect normal et les digitations achantosique épithéliales disparaissaient. Convenait-il d'attribuer ces heureux résultats à un pouvoir bactéricide des sels insolubles de Ca. Le laboratoire le révéla inexistant, ne pouvant expliquer l'atténuation, la disparition des phénomènes inflammatoires que par une action sur le terrain, sur les moyens de défense, le trophisme cellulaire, j'en recherchai la confirmation expérimentale. J'en constatai effectivement l'existence dans son effet surprenant sur la cicatrisation des plaies de la blessure accidentelle à l'ulcère trophique.

J'avais effectivement dans le traitement local de la pyorrhée une arme d'un maniement relativement facile et d'une double et indiscutable efficacité.

Lorsque tous les traitements adjuvants locaux (notamment destruction des clapiers et détartrage) sont terminés, je l'utilise parallèlement à la confirmation du traitement de l'état général et après la première série (6 au moins) d'injections d'auto-vaccin.

Après quelques séances de saturation du conjonctif gingival et réduction des symptômes inflammatoires, j'infiltre le conjonctif ligamentaire des dents dont la consolidation est recherchée, après bien entendu immobilisation de ces dernières, comme il est habituel, pour obtenir un cal osseux.

Il faut 8 à 10 séances, espacées sur 10 à 15 mois, dans les cas moyens, pour obtenir le résultat suivant: *la gencive revient à sa couleur, son aspect, son volume normaux sur ce qui subsiste de tissu osseux.* La consolidation n'est naturellement obtenue que dans la mesure où l'état osseux est encore suffisant c'est-à-dire de 3 à 5 mm., autour de la racine.

Elle est parfois telle que l'extraction ultérieure en est difficile et qu'un traumatisme entraîne la fracture de la racine au niveau de l'enchassement osseux.

Je ne puis ici donner le détail de la technique, mais je reste à la disposition de ceux qu'elle intéresserait pour toute démonstration qu'ils pourraient désirer.

Dans la pyorrhée de forme ischémique, la bénignité apparente des symptômes locaux, son apparentement avec les maladies qui conditionnent la raréfaction osseuse diffuse du squelette font comprendre qu'ici le traitement local cède le pas à la thérapeutique de la maladie générale causale dont la pyorrhée ischémique conformément à la loi de Kolliker est très constamment le signal d'alarme.

Dans l'état actuel de nos connaissances sur la pathologie endocrinienne, en dehors des cas où la cause d'un dysendocrinisme est évidente: castration précoce, maladies cliniquement évidentes thyroïdiennes, surréaliennes, etc., nous ne disposons malheureusement pas encore de tests certains permettant d'orienter et surtout au début, vers l'endocrine en cause. Le diagnostic d'une pyorrhée ischémique nous permet d'affirmer l'existence d'un trouble du métabolisme du Ca, probablement en relation avec une maladie endocrinienne, mais il appartient au médecin, à l'endocrinologue de s'efforcer de l'identifier avec toute son expérience clinique.

Lorsque le traitement général, conséquence d'un diagnostic simple ou heureux, est logiquement établi, le retentissement sur la raréfaction osseuse alvéolaire est des plus intéressants et les mensurations répétées tous les trois mois montrent, sinon un arrêt, du moins un ralentissement évident de l'ostéolyse.

J'ai l'impression localement d'agir dans ce même sens en étalant mon précipité de Ca dans les régions particulièrement frappées par la raréfaction osseuse et en tâchant d'agir sur le territoire sympathique en infiltrant les nerfs dentaires maxillaires supérieur et inférieur avec des solutions de cocaïne à 1%.

Dans les cas favorables, où un diagnostic précis et précoce ainsi qu'une thérapeutique heureuse et efficace ont pu intervenir, j'ai pu assister à l'arrêt clinique de l'évolution de la pyorrhée de forme ischémique.

Qu'il s'agisse de la forme ischémique,

et plus encore de la forme inflammatoire, on ne saurait trop insister sur l'importance d'un diagnostic et d'un traitement précoces.

Soignée à ses débuts, la pyorrhée est relativement facile à enrayer. Aussi, dans la prophylaxie dentaire, faut-il faire à la pyorrhée une place plus importante que celle qui lui est généralement réservée.

La pyorrhée est enfin le type des maladies qui ne peuvent être soignées qu'en équipe. Elle nécessite en effet la collabo-

ration du médecin de médecine générale, du bactériologiste, de divers spécialistes et enfin du dentiste.

La part qui lui incombe est considérable. Indépendamment du dépistage, de l'orientation du malade, il doit satisfaire au traitement local harmonisé avec le traitement général, et aux nécessités prothétiques, depuis l'appareil de redressement, en passant par les attelles, les dentiers-attelles jusqu'au bridge, conclusion et non prémice de la restauration dentaire.

DOCTORAT HONORIFIQUE AU DR ROBERT BRADLAW



L'Université de Montréal, à la demande de sa faculté de chirurgie dentaire, a décerné, le 11 novembre 1952, un doctorat "honoris causa" au docteur Robert Bradlaw, doyen du Sutherland Dental School, Newcastle-on-Tyne, Angleterre.

Dans la photo ci-haut, on voit Mgr Oliver Maurault, recteur de l'Université, remettant au docteur Bradlaw son parchemin honorifique.

Nouvelles des Sociétés

Société Dentaire de Montréal

Séance de septembre

Le docteur B. B. Raginsky, psychiatre réputé de Montréal, était le conférencier du mois. Le sujet de sa communication fut le suivant: "Les rapports de la psychiatrie avec la chirurgie dentaire."

"L'intérêt que le dentiste porte à l'anesthésie est assurément très naturel. Le soulagement de la souffrance est aussi important en chirurgie dentaire qu'il l'est dans toute autre branche de la chirurgie ou de la médecine. Mais on doit souligner le fait que les qualités qui constituent un excellent chirurgien-dentiste ne sont pas nécessairement celles qui produisent une anesthésie calme. C'est pour cette raison que, du point de vue de l'approche psychosomatique, il est quelquefois nécessaire de faire quelques adaptations. L'un des obstacles, dans l'étude de l'anesthésie pour le chirurgien-dentiste, consiste en ce qu'il aborde ce domaine de la même façon que la manipulation dentaire. Il faut que le dentiste réalise que les besoins psychologiques fondamentaux d'un patient sont plus complexes lorsqu'il s'agit d'une anesthésie, que lorsqu'il s'agit d'un simple travail mécanique dans la bouche.

Les dentistes qui utilisent l'hypnose dans leur pratique le font uniquement pour soulager la souffrance ou produire l'anesthésie. Il leur faudrait cependant acquérir une connaissance profonde de tous les aspects de l'hypnose. De même que le chirurgien qui ouvre un abdomen doit être prêt à affronter toute éventualité chirurgicale, de même, celui qui se sert de l'hypnose doit-il être préparé à toute malencontreuse manifestation susceptible de survenir pendant l'hypnose. L'induction de l'hypnose varie avec chaque individu. Pour s'en servir avec succès, il est nécessaire d'acquérir la connaissance de la psychodynamie de la personnalité, puisqu'il s'agit primordialement d'une situation humaine impliquant une subtile interaction des aspirations de l'homme.

L'hypnose peut être comparée à un scalpel psychologique qui est employé pour

couper en travers des résistances inconscientes et conscientes du patient. Elle peut être ensuite utilisée comme un microscope psychologique pour amener en pleine lumière et dans un foyer amplifié la matière psychologique qui sans elle demeure voilée et disjointe. On peut également s'en servir comme d'un curette psychologique pour enlever un amoncellement de déchets et pour canaliser les émotions plus normalement dans le sens du courant de la personnalité. Enfin on peut l'utiliser comme un point de suture psychologique pour maintenir une cohésion entre les suggestions faites pendant l'hypnose. Mais on doit savoir utiliser ce scalpel avec autant de dextérité que le chirurgien. On ne doit pas être moins entraîné à l'usage de ce microscope que le pathologiste ne l'est à celui du microscope optique."

Tournoi de golf

Jeudi, le 11 septembre, tournoi de golf de la Société Dentaire de Montréal, à St-Jean d'Iberville. Environ 170 dentistes et leurs amis prenaient part au tournoi annuel. Des prix splendides ont récompensé les gagnants des différentes épreuves.

Séance d'octobre

Le Dr Edward V. Zegarelli, chef du service de diagnostic de la faculté dentaire de l'Université Columbia présenta une communication sur "Les manifestations allergiques de la muqueuse buccale." Le dentiste peut, à l'occasion, détecter des réactions allergiques, qui peuvent avoir des répercussions dans la muqueuse buccale, s'il comprend le mécanisme de ces allergies. Le docteur Zegarelli, en pédagogue averti, commença par exposer à l'assistance particulièrement nombreuse, une théorie généralement acceptée pour expliquer les phénomènes allergiques. Ensuite, une série de transparents colorés illustra cette théorie. Ces réactions allergiques peuvent être responsables d'un grand nombre d'affections

d'étiologie obscure, affections douloureuses et inflammatoires.

Le conférencier distingué fut présenté par le docteur Gérard de Montigny et remercié par le docteur Hervé Deschênes.

Séance spéciale de novembre

A l'occasion de son passage à Montréal, le docteur René Vincent offrait aux membres de la Société une conférence intitulée "Quelques faits chimiques et pathologiques au sujet de la pyorrhée."

Le docteur René Vincent est professeur à l'Institut de Stomatologie de la Faculté de Médecine de Paris et président honoraire de la Société de Stomatologie de France.

Dans sa communication, le Dr Vincent mit en lumière les résultats des examens complets qu'il fit de 5,000 patients atteints de pyorrhée alvéolaire.

Les conclusions de cette étude démontrent sans l'ombre d'un doute que l'état du système digestif exerce une influence directe sur la physiologie de l'os alvéolaire et de la gencive.

La méthode préconisée par le Dr Vincent pour le traitement de la pyorrhée consiste dans la préparation d'un auto-vaccin avec les bactéries prélevées dans les culs-de-sacs gingivaux et dans l'élimination des facteurs locaux.

Parti d'huîtres de la Société Dentaire de Montréal

Le 6 novembre, avait lieu le parti d'huîtres annuel de la Société. Environ deux cents dentistes et leurs amis prirent part à ces agapes, qui eurent lieu au Mess des Officers du Régiment de Château-guay. Cette réunion remporta un éclatant succès, grâce au zèle des organisateurs.

Société Dentaire des Laurentides

Jeudi soir, le 30 octobre, la Société Dentaire des Laurentides recevait à l'Hôtel Lapointe de St-Jérôme, le docteur Harry M. Seldin, chirurgien buccal réputé de New-York.

Le docteur Seldin exhiba en primeur un film en couleurs et sonore sur le traitement des kystes du maxillaire et répondit aux questions des membres.

Le docteur Seldin était accompagné des membres suivants du corps professoral de l'Université de Montréal: Ernest Charon, doyen, Gérard de Montigny, chef-adjoint du Service d'Anesthésie et de Chirurgie buccale et Antoine Raymond, professeur d'anesthésie.

Le docteur Francel Papailler, de Port-au-Prince, Haïti, s'était joint au groupe venu de Montréal.

Magiciens modernes

L'une des opérations chirurgicales les plus extraordinaires vient d'être pratiquée sur un combattant de Corée, dont une partie du visage avait été arrachée par un éclat d'obus.

Après lui avoir refait, de toutes pièces, une mâchoire inférieure, puis une mâchoire supérieure, lui avoir confectionné un dentier spécialement adaptée et, de ses cartilages épargnés, tiré un nouveau menton, les chirurgiens ont tenté le miracle: créer une langue. C'est de son dos que l'on tira la matière nécessaire et, la langue façonnée, on la greffa à la racine normale de la langue naturelle. Les résultats obtenus furent étonnants et le patient, aujourd'hui complètement "reconstruit", s'exprime aussi correctement qu'avant son affreuse blessure. C'est un de plus beaux miracles de la chirurgie moderne.

Nouvelles de l'Association

Assurance-Santé—Rapport de l'enquête sur la santé

Comme des élections fédérales s'annoncent pour l'an prochain, on agit la question d'assurance-santé et on parle de législation possible à ce sujet. Sans doute, quelques-unes de ces déclarations ne sont que des ballons d'essai pour sonder l'opinion publique.

Les enquêtes entreprises dans les provinces sur les nécessités de chacune d'elles dans le domaine de la santé n'ont pas encore été toutes compilées sous forme de rapports, mais, à l'exception de Terre-Neuve, on en a déjà fait connaître les données. Les recommandations contenues dans ces rapports ne lient en rien les gouvernements concernés. Voici les suggestions contenues dans ces rapports en ce qui a trait à l'assurance-santé:

Colombie britannique: "Qu'on ne mette pas encore en force un plan total d'assurance-santé, mais qu'on étudie encore la question."

Alberta: "C'est l'opinion du Comité d'Enquête qu'un plan d'assurance-médical soit incorporé dans un programme complet d'assurance-santé, en Alberta."

Saskatchewan: "Qu'un programme intégral d'assurance-santé soit mis en acte aussitôt que possible, en Saskatchewan."

Manitoba: "Qu'on approuve le principe général d'assurance-santé, sous une forme ou sous une autre, mais qu'on laisse aux individus la liberté d'adhérer au plan et que le gouvernement comble le déficit et en surveille la finance."

Ontario: On n'aborde pas cette question.

Québec: On n'aborde pas cette question.

Nouveau-Brunswick: "Qu'on s'occupe d'abord de combler les lacunes des services médicaux, des infirmières, du personnel adjoint, des laboratoires et hospitaliers, avant d'entreprendre un programme d'assurance-santé équitable et supporté par les deniers publics, qui s'applique à toute la province. En attendant ces améliorations dans les services ci-haut mentionnés, qu'on encourage ceux qui peuvent le faire à s'in-

scrire dans des plans libres d'assurance-santé et que le gouvernement passe une loi d'après laquelle il paierait pour les indigents, d'une façon ou de l'autre."

Nouvelle-Ecosse: "Qu'on ne songe pas à établir l'assurance-santé avant qu'on ait le personnel médical nécessaire pour faire face à l'avalanche de soins que cette mesure entraînera."

Ile-du-Prince-E: "On suggère que le gouvernement subventionne des organisations libres d'assurance-santé, qu'il s'agisse des municipalités, du gouvernement provincial, du gouvernement fédéral ou d'un organisme comprenant ces divers corps publics."

Service de recherches dentaires fondé à Toronto

Depuis plusieurs années, les recherches dentaires de l'Université de Toronto ont gravité autour d'un seul homme, le Dr H. K. Box. Depuis peu, plusieurs autres dentistes ont commencé aussi à s'intéresser à ce domaine. Grâce à ce groupe de chercheurs, on a pu organiser le premier centre de recherches dentaires dans une Université canadienne. Il y a quelques mois, on a modifié une partie de la faculté dentaire pour la transformer en des laboratoires modernes, dotés des facilités indispensables à ce genre de travail. L'Université elle-même, a donné à ce projet un support généraux et deux fondations ont aussi aidé à sa réalisation. Une des difficultés qui n'est pas encore solutionnée consiste à trouver les fonds nécessaires pour payer les salaires du personnel. Un Comité entreprenant vient de se mettre à l'oeuvre pour recueillir les agents requis pour mener à bien cette organisation louable.

La recherche est inhérente au progrès de la dentisterie et il convient de féliciter tous ceux qui se sont occupés de réaliser cette entreprise.

Plan d'Assurance-Pension de l'A.D.C.

Au 15 octobre de cette année, le total des assurances-vies prises par les membres de la profession dentaire se chiffrait à \$1,248,000. A cette date, ce plan était

en force depuis à peu près trois mois et demi. La compagnie, qui s'occupe de l'affaire, se dit des plus satisfaites du volume des polices émises. Quelques membres se plaignent de la lenteur des réponses à leurs demandes de renseignements. On nous dit que le nombre de ces demandes dépasse celui qu'on avait imaginé et qu'il faut du temps à l'actuaire pour solutionner chaque problème individuel. On met tout en oeuvre pour répondre aux demandes dans l'ordre où elles sont reçues, mais on doit s'attendre encore à certains retards jusqu'à ce que les premières demandes aient été satisfaites. On adresse toutes les demandes à :

C.D.A. Pension-Assurance Trust
Post Office Box 170
Brockville, Ontario.

Brosses à dents vertes

On rapporte que plus du tiers des dentifrices sont maintenant à base de chlorophylle. On se rendra compte de la rapidité de l'évolution des dentifrices en songeant que les premiers dentifrices à la chlorophylle sont apparus sur le marché environ en février dernier. Les ventes de pâtes dentifrices, aux Etats-Unis, se chiffraient à \$6,215,000, en juillet 1951 et à \$7,855,000, en juillet 1952, une augmentation de 26 pour cent.

Réunions de Comités

Les Comités suivants ont tenus des réunions au Secrétariat de l'A.D.C. aux dates suivantes :

Immeuble, le 6 novembre
Services dentaires hospitaliers, 11 novembre
Etudes sur l'Assurance-Santé, 14 et 15 novembre
Publication, 28 novembre.

Souhaits de l'A.D.C. à l'Université Laval

L'Association Dentaire Canadienne a offert à l'Université Laval, de Québec, ses meilleurs voeux à l'occasion de son centenaire. Voici le texte de ces souhaits :

A Monseigneur le Chancelier,
A Monseigneur le Recteur,
A Messieurs les membres du
Conseil et du Corps professoral
de l'Université Laval.

A l'occasion des fêtes grandioses qui marquent le centenaire de votre Université, l'Association Dentaire Canadienne a le vif plaisir et le très grand honneur de vous offrir ses hommages, ses félicitations et ses vœux.

La renommée mondiale de votre Université, le haut rang qu'elle occupe dans le monde scientifique sont des sujets de fierté et de joie pour tous les dentistes canadiens. Ces derniers sont heureux de se joindre aux représentants des autres universités et sociétés culturelles, en un mot, à tous les amis de L A V A L, pour souhaiter à cette institution particulièrement méritante de longues années de travail et de progrès dans la paix.

L'Association Dentaire Canadienne est heureuse de compter parmi ses membres fondateurs, ses présidents et ses membres actifs, des diplômés de L A V A L qui font grand honneur à leur Université et à leur Association, et elle profite aussi de l'occasion pour renouveler un vœu qu'elle soumet respectueusement à l'attention des autorités universitaires; elle souhaite que L A V A L puisse bénéficier bientôt des facilités nécessaires pour l'enseignement de l'art dentaire.

L'Association Dentaire Canadienne
Président (Gustave Ratté)
Secrétaire (Don W. Gullett)

Toronto, septembre 1952.

L'Université de Montréal honore le professeur Bradlaw

Le 11 novembre, l'Université de Montréal a décerné un doctorat honorifique au professeur Robert Bradlaw, doyen du Sutherland Dental School, Newcastle-on-Tyne. Le professeur avait été invité en Amérique à présenter un travail à l'Académie de Pathologie de New York et à donner une série de cours sur la pathologie buccale à la faculté dentaire de l'Université d'Oregon à Portland.

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Variétés

LES MOTS MAL FAITS

A la suite de l'admirable découverte de la pénicilline, suivie de la série, qui n'est heureusement pas près d'être épuisée, des produits analogues, le vocabulaire médical s'est trouvé enrichi d'un nouveau terme: les antibiotiques. Dans l'enthousiasme suscité par les vastes perspectives que cette découverte ouvrait, le terme fut accepté d'emblée et sans discussion par le monde scientifique. Il s'agissait de distinguer ces nouveaux agents des autres germicides (un mot qui dit bien ce qu'il veut dire), car ils ne tuent pas les micro-organismes, mais les empêchent de proliférer. Etymologiquement, il n'est pas nécessaire d'être grand helléniste pour se rendre compte que le nouveau terme ne dit rien de tout cela, mais il était une étiquette, un signe distinctif, et fut accepté comme tel.

Les choses en seraient toujours là, si "antibiotique" ne s'était pas avisé de . . . proliférer. Et nous avons eu, c'était fatal, "antibiothérapie". Et là, cela ne va plus, mais plus du tout. Car si on a l'imprudence de l'analyser, on constate que c'est, à la lettre, un "traitement contre la vie". Contre la vie de qui? Serait-ce contre la vie de celui auquel il s'applique?

Flemming dirait certainement: "Je n'ai pas voulu cela!"

Et qu'en pense Solas, notre spécialiste en nomenclature?

L'Information Dentaire
Novembre 1952

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